FORTYMILE

a minimum personnel contact visitor management program

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A MINIMUM PERSONNEL CONTACT VISITOR MANAGEMENT PROGRAM

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Prepared for the

Bureau of Land Management
U. S. Department of Interior
Fairbanks District, Alaska

by

Department of Park Administration
and Landscape Architecture

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May 3, 1976

Mr. David Mihalic
Outdoor Recreation Planner
Bureau of Land Management
Fairbanks District Office
P.O. Box 1150
Fairbanks, Alaska 99707

Dear Mr. Mihalic:

We are pleased to submit herewith a report entitled "Fortymile: A Minimum Personnel Contact Visitor Management Program," which has been completed in compliance with the provisions of Contract No. 50910-CT5-1.

This report responds to Sections II and III of the Work Plan. The information comprising the response to Section I will be forwarded under separate cover.

We are pleased to have the opportunity of performing this service for you and appreciate your generous extension of cooperation and assistance.

Sincerely yours,

Arthur N. Glick
Assistant Professor

James D. Mertes
Associate Professor

JDM:js

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ACKNOWLEDGEMENTS

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We are most appreciative of the spirited assistance provided by the Bureau of Land Management personnel in Alaska. Outstanding cooperation was forthcoming from Mr. David Mihalic, Outdoor Recreation Planner, Fairbanks District; Mr. Gerald Timmons, Area Resource Manager, Fortymile Resource Area; Mr. Terry Plummer, Mr. Robert Malchow, Mr. Roger Trimble, and several of the field personnel.

Our office staff at Texas Tech University worked diligently to dispatch the massive volume of typing and secretarial tasks associated with the project. Mr. William Dial assisted in preparing the graphics and Mrs. Cecelia Glick was most helpful with field note preparation and proofreading of the final report.

RECOMMENDATIONS

RECOMMENDATIONS

The following recommendations for resource management actions reflect what the investigators believe to be the most urgent actions necessary to preserve and protect the integrity of the Resource Area. Incorporated in these recommendations is the recognized necessity to utilize to the fullest extent possible the concept of non-contact visitor management. Under this concept, the managing agency will operate with a minimal number of personnel in the field and, instead, will rely on the message impact of the interpretive and communication system to stimulate visitors to act in a positive manner.

Program Administration

The BLM should continue the planning program for the Fortymile Resource Area in a systematic fashion similar to that of other tourism-recreation area management agencies. The plan should coordinate all State, Federal, and Canadian agencies whose programs relate to the Fortymile Resource Area so that all are working toward the same development objectives and follow the same standards.

The data currently available on the Taylor Highway reflect contradiction or at least ambivalency in the State of Alaska Highway Department's attitudes and development programs for the Taylor Highway. The draft environmental impact statement for improvements on the Taylor Highway is an excellent case in point. Numerous references are made to the need to both improve the alignment of the Highway as well as to improve the nature of the surface based on anticipated tourism-recreation demands for the Highway. Yet, these projections of future recreation participation are largely subjective; there is no apparently organized information on tourist use over time along the Highway which can be objectively analyzed by statistical methods. This lack of data needs to be corrected as soon as possible. Standard traffic count techniques using existing equipment and analytical methods need to be initiated. BLM and the State need to coordinate their user-

oriented data collection and analysis programs.

The BLM should make every effort to utilize the experience and resources of other Federal agencies with long-standing experience in the management of historical, cultural, and recreational resources. The suggested implementation program should be used as the basis for programming future requests for personnel, programs, capital development, and planning activities.

Natural Resource Administration

A visual resource management program should be initiated for the river corridors and the Taylor Highway. This would include the establishment of landscape control points at those areas where visual impairment resulting from probable development or modification could occur.

Immediate action should be initiated to rehabilitate the many gravel pits along the Taylor Highway. This activity would include grading and revegetating all open scars on the hillsides which are distinctly visible from the road or river. Ample research on revegetation of gravel pits has been conducted by the State of Alaska, the University of Alaska, Aleyska Pipeline Services Company, and numerous Federal agencies.

Efforts should be made to minimize the impact of proposed highway upgrading work on the water quality of the Fortymile River.

Gravel pits used for highway maintenance should be carefully selected so as to minimize the visual intrusion during their period of use.

Cultural Resource Inventory

The BLM should continue its program of cultural resource inventory, mapping, and condition classification for sites and artifacts within the Fortymile Basin. A more workable recording system for field data and photographic records should be developed.

The BLM should continue its program of conducting personal

interviews with knowledgeable local residents, many of whom remember events which took place early in this century. These people represent one of the best sources of information about landmarks and past events in the Fortymile country. If at all possible, these interviews should be taped, preferably on the site. In some instances, it would be highly desirable to utilize portable closed circuit television to make video tapes of these visits.

All loose artifacts found at sites in generally advanced deterioration, or at inaccessible sites, or at sites where it is not feasible to develop a complete interpretive package should be collected and displayed in either a Resource Area museum or in selected historically representative sites in good repair. This would assure the protection of artifacts which otherwise could disappear over time.

Immediate action should be taken to insure protection of the Wade Dredge. George Robinson indicated that he had considered destroying the dredge for safety reasons. Due to its historical significance, BLM should make every effort to see that the dredge becomes public property and is structurally stabilized.

Cultural resource development and interpretive planning within the Fortymile Resource Area should be coordinated with those activities currently underway and planned for the Yukon Territory. The recent plan for the restoration and interpretation of Fort Selkert and the town of Fortymile suggests that the Yukon territorial government and United States government should pursue coordinated interpretive programs.

BLM should contact the present owners of the Chicken Dredge to determine the possibilities of a joint effort aimed at incorporating the dredge into an interpretive program for the Chicken townsite. Similar efforts should be made for mutual public-private preservation of existing structures at Steele Creek and Franklin.

Interpretation

A visitor contact and information program should be initiated immediately. Emphasis should be placed on reaching the visitor prior

to his entering the Fortymile Resource Area as well as more complete communication within the Area.

All of the interpretive devices suggested in this plan should be designed with the idea that they can be modified or completely changed as necessitated by additional information about a particular site. As research and planning activities continue, many of the messages and dioramas can be updated and expanded.

The BLM should adopt a Fortymile Resource Area logo for use on all signs, literature, vehicles, and other forms of agency identification to further visitor identification with the Area.

Interpretive and visitor information brochures should be prepared separately for: (1) the Fortymile River and its tributaries; (b) the highway facilities, differentiating those which lie along the Alaskan Highway and consist largely of the administrative offices and facilities of the Bureau of Land Management from those along the Taylor Highway, which is the major vehicular access corridor through the Resource Area; and (c) the unique historic renovations which are being made available at the Fort Egbert site in the town of Eagle.

A system of non-contact visitor management and interpretation for the Fortymile Resource Area should be reinforced by a comprehensive graphics system.

Items selected for interpretive treatment should be based on a general theme consistent with the cultural patrimony of the Fortymile Resource Area.

The Interpretation program should focus on unique or rare features with hidden significance.

It is essential that all types of messages relay correct information if the visitor is expected to respond in a specified manner.

A Fortymile Resource Area logo used on all signs, published materials, agency vehicles, and other references to the Area can be very instrumental in creating and reinforcing visitor awareness.

Interpretive devices located at roadside rest areas should refer to points of interest upcoming on the same side of the road so as to discourage cross traffic and the resultant congestion.

Interpretive information should be provided along the highway

corridors at the sites of unique historical, cultural, and environmental points of interest.

BLM should eventually develop a major visitor contact and interpretive facility in conjunction with the State Highway Department or Park Department at an appropriate location in or near Tok.

Interpretive graphics employed at the entry points to the Fortymile should denote a sense of arrival for visitors.

Visitor Information

Visitors should be informed as to the legal aspects pertaining to the property rights of patent lands, active mining claims, and the public domain lands. This includes the applicable elements of the Antiquities Code.

Prospective visitors need to be made aware of the resources of the Fortymile Area well in advance of their approach to the Area.

Immediate action should be taken to provide more general and current information about the Area.

All forms of tourist information should be included in the range of visitor information distributed by BLM at its major visitor contact stations. A wide variety of complementary media is desirable.

BLM in cooperation with the State Highway Department should prepare and distribute more complete information about recreation and tourism facilities and traveler service facilities within the Fortymile Resource Area.

Highway-oriented visitor information facilities should be designed to serve a variety of interpretive and attitudinal purposes.

Welcome displays should be provided at highway access points to the Resource Area.

The Fortymile Resource Area introductory stations should be located at roadside turnout sites just inside the Resource Area. Sites for these facilities are noted in the text and in Appendix A.

Special information sites should be developed to provide the visitor with more specific information about major environmental regions within the Resource Area and to help interpret unique aspects

of the countryside in more detail than is appropriate in a general information area.

All brochures regarding facilities, services, and points of interest in the Fortymile Resource Area should include an introductory paragraph that acknowledges the other brochures which relate to aspects of the Resource Area not covered in that publication and which specifically mentions the titles and distribution points where these other brochures are available.

Historic Communities

Special emphasis should be placed on the rehabilitation and restoration of the towns of Chicken, Franklin, and Steele Creek. It would be advisable to eventually secure these sites in public ownership so that a complete protection, rehabilitation, and interpretive program could be developed for each site.

Highway Corridor

Mitigation of existing visual impacts and prevention of future encroachments on the visual integrity of the highway should be incorporated into the corridor visual management policies.

BLM and the Alaska Department of Highways must resolve what is to be referred to as the Taylor Highway as well as the relationship of the two extensions. This nomenclature must be standardized on all signs and printed materials.

Improvement of the road to Eagle would seem to be more in keeping with improvements justified by recreation and tourist interest since this portion of the Highway is generally narrower and more serpentine than other portions of the roadway servicing this historic site.

BLM and the Alaska Department of Highways should coordinate estimates on future traffic demands on the Taylor Highway so as to arrive at the most appropriate plan for upgrading the existing road.

The Alaska Department of Highways should exercise extreme care to maintain accuracy in the placement and replacement of milepost

markers and future kilometer posts.

Turnouts along the Taylor Highway should be located at approximately thirty minute driving intervals. These will be most helpful for older travelers who may need frequent rest stops to alleviate driver fatigue which results from traveling with campers and trailers over tightly winding roads.

Improved programs for roadside litter management need to be developed along the Taylor Highway.

The priorities for highway-oriented interpretive devices and structural improvements will be the result of balancing the communication impact value of each proposal with its construction and maintenance costs. The welcome displays; the pre-recorded introductory radio messages; a more comprehensive program of information brochure and map production-distribution; and construction of small-scale roadside turnouts are among the least expensive improvements which can be quickly provided under the existing manpower and budget constraints. Of the more costly improvements suggested, the larger-scale roadside developments proposed for the General Information Area near Scotty Creek and a major centralized Visitor Center would have the greatest impact on visitors. However, less costly major areas at the Wade Dredge sites; the southern Taylor Highway Information site near the Indian reservation; and the combined General Information and Taylor Highway Interpretation site near the community of Boundary and the U. S.-Canadian border would seem to offer a balance of high visibility-communication impact on tourist visitors and development costs.

River Corridor

The river information and interpretive plan should emphasize the feature resource elements suggested in Chapter III.

A key element in the river recreation and interpretation plan should be the proposed self-guided river tour brochure.

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INTRODUCTION

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The State of Alaska is today the last wilderness frontier in the United States. Its vastness and scenic grandeur are unsurpassed anywhere. Within this vast expanse is found a variety of natural resources and cultural remnants of many significant events in American history.

In the haste to explore and develop the resources of Alaska, as well as to simply enjoy the virtually unlimited outdoor recreation opportunities, people have become careless in their treatment of the land and its wealth of artifacts. This kind of activity has prompted the Federal and State governments to undertake a series of concentrated programs aimed at developing plans for the preservation and management of the truly unique natural and cultural resources of the State.

The Fortymile Resource Area, which covers 19,453 square miles, is one of the unique natural and cultural areas within Alaska. Located in the east-central portion of the State, it contains a wealth of resources and outdoor recreation opportunities. It is within the Fortymile River Basin that numerous discoveries of gold were made during the late 1800s and commercial mining continues on a limited scale. The area is rich in the history of this activity. Numerous miner's cabins, several small gold rush towns, and many pieces of heavy mining equipment are found on the tributaries and main stem of the Fortymile River. The Alaskan Highway which traverses the area is steeped in the history of World War II and the beginnings of intensive exploration and settlement of Alaska. The Taylor Highway provided the first modern road linkage to the interior of the Resource Area, joining Eagle, Chicken, Boundary, and other historic sites of the region to the Alaskan Highway at Tetlin Junction and to the historically-related sites of Dawson and Whitehorse, Yukon Territory, Canada. The location of the Fortymile Resource Area is shown in Figures 1 and 2.

Currently, the Fortymile River is under consideration by Congress for designation as a National Wild and Scenic River and the area has been classified as D-2 lands under Section 22(i) of the Alaska Native Claims Settlement Act, which authorizes the Bureau of Land Management to plan and manage the area as a recreational resource. Included in this grant of authority is the responsibility for stewardship of the wealth of historical and cultural resources found within the Resource Area. It is the intention of the Bureau of Land Management to serve as trustee of these historic sites and cultural resources, preserving and interpreting them for the enrichment and enjoyment of future visitors.

Scope of the Study

The intent of this study is to include additions to the on-going BLM historical and cultural resource inventory of the Fortymile River Basin and Taylor Highway Corridor in the process of developing an interpretive plan which emphasizes guidelines for non-contact visitor management within the Area.

Objectives of this Study

1. Expand the existing inventory of cultural and historical resources for the study area.
2. Develop interpretive guidelines for the river and highway corridors.
3. Develop visitor management guidelines for the recreational and cultural resources within the study area utilizing the non-contact visitor management system.
4. Suggest action priorities and strategies for protection, restoration, interpretation, physical facility development, and intensive management of specific elements and/or sites within the area which are experiencing or can be predicted to quickly reach a high level of deterioration or despoliation due to visitor contact.

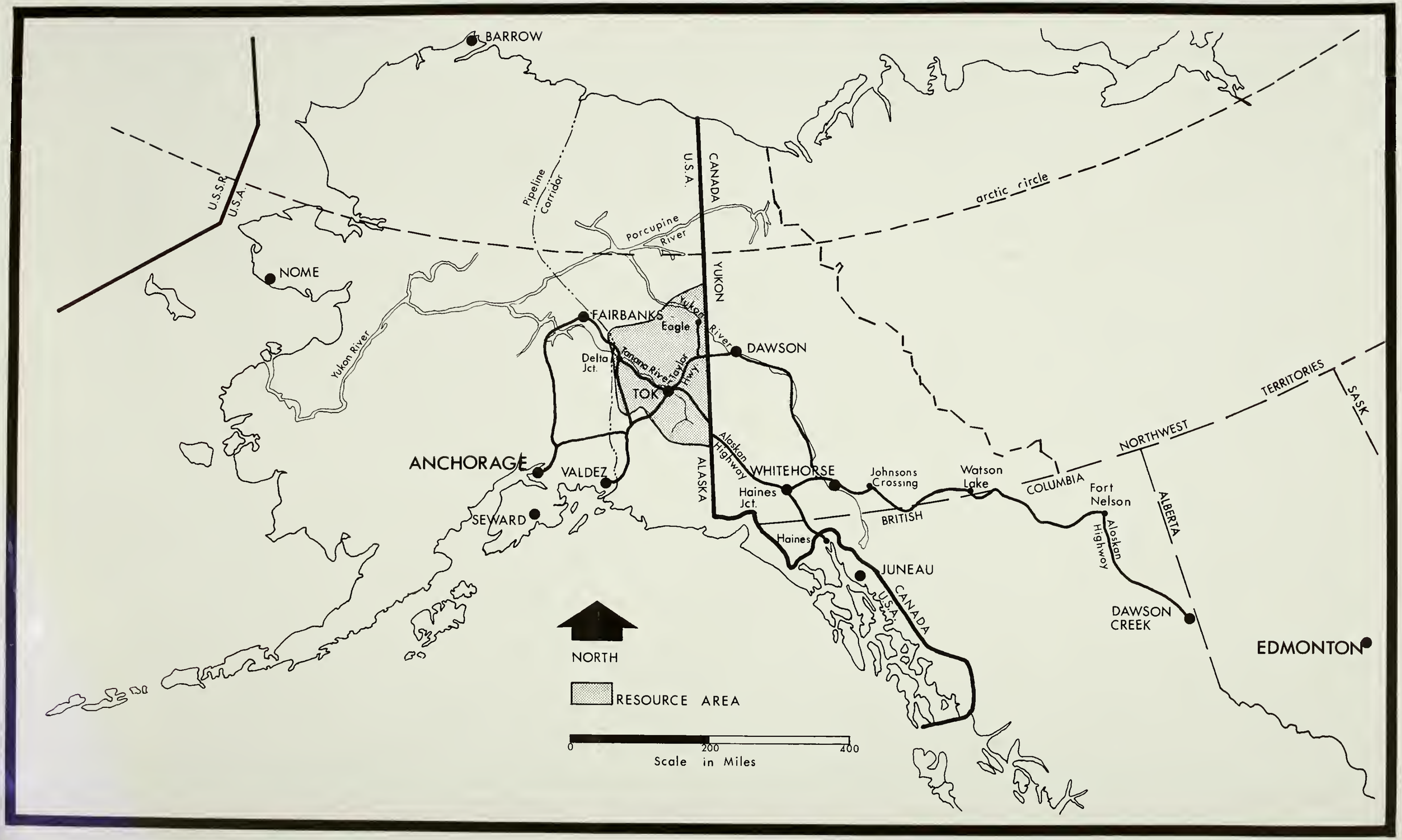


FIGURE 1. ALASKA AND WESTERN CANADA

The Historical and Cultural Resource Inventory

The present BLM inventory of cultural and historical sites within the Fortymile River Basin has been developed over a period of several years and can be expected to continue far into the future. The existing data are filed for each site, with sites grouped according to their location in the various watersheds of the Fortymile River Basin and located by range and township grid quadrants on United States Geological Survey 1:63,360 series topographic maps. Information includes local records, interviews with old-timers who still reside in the area and observations by agency personnel.

It was anticipated in the preparation of the work programs for this study that field trips into the Resource Area would encounter developed sites and individual artifacts not previously inventoried. All such locations have been added to the agency files.

Given the limited duration of this present study, the researchers were initially forced to concentrate their efforts in those areas considered to be most subject to future visitor exposure and potential negative human impact. These areas were felt to lie adjacent to the navigable portions of the river and to the improved-surface highways. Most of the cultural and historical sites visited by the researchers in these areas have been previously visited by BLM personnel. However, some new items within these corridors were added to the inventory. Additionally, several new locations were added as a consequence of chance observation during cross-country flights made in visiting known sites. In many cases, these additions represented sites visited or overflown by agency personnel prior to the initiation of the present inventory program. Hence, few sites added to the inventory during this study were truly new discoveries. Commonly, the mention of a "discovered" site to BLM personnel would bring to their mind a prior visit made in the course of some other Agency activity which had been overlooked or forgotten upon return from the field and, consequently, had gone unrecorded in the historical and cultural resource inventory files.

Due to delays within BLM in processing the contract for this

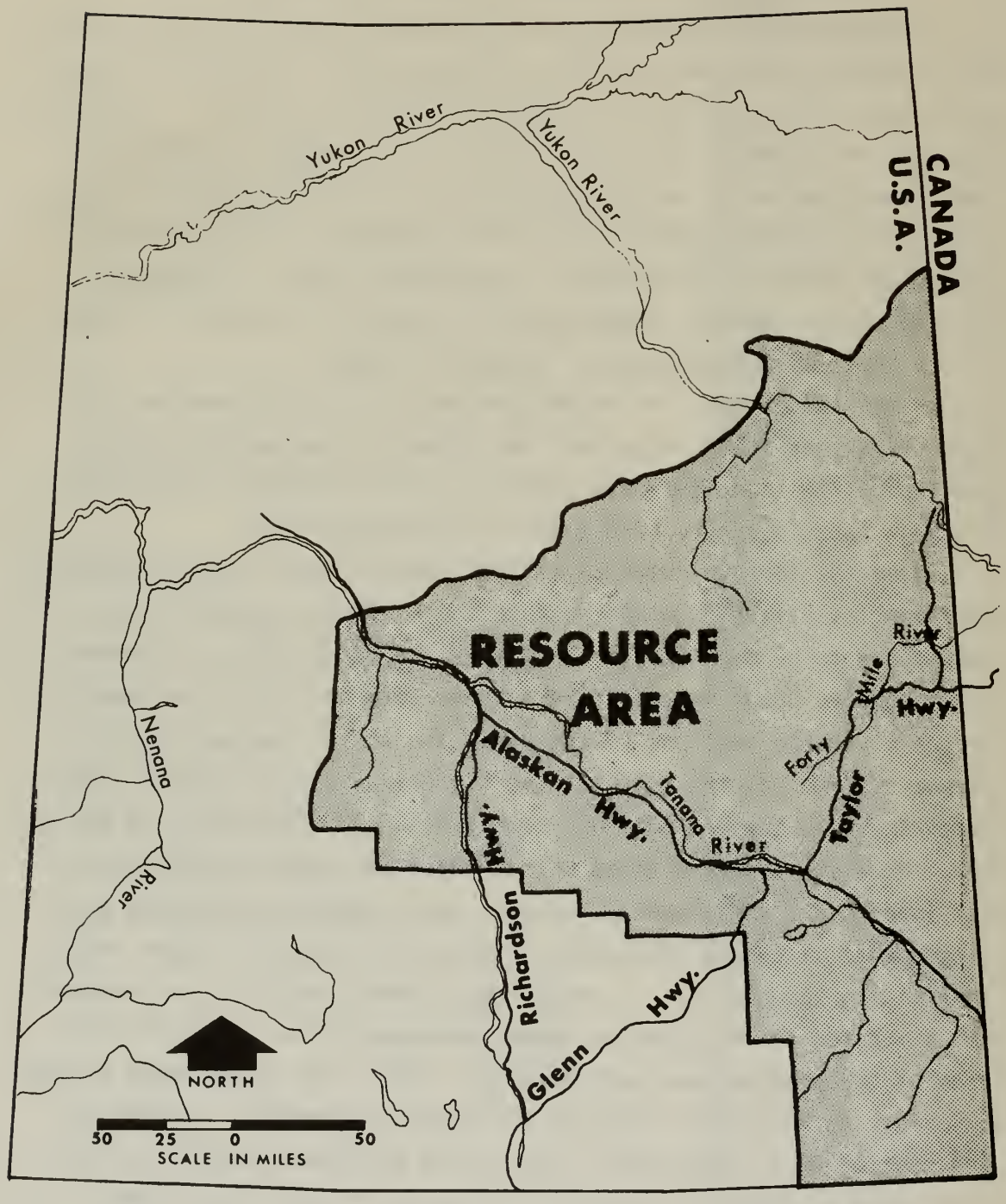


FIGURE 2. FORTYMILE RESOURCE AREA LOCATION

study, the investigators were three weeks behind schedule getting into the field. Weather conditions during the latter portions of the field work placed limitations on visibility for photographic inventories and on aircraft availability during fire alerts. These factors reduced the time originally estimated for expanding the inventory of sites outside the primary visitor impact areas.

In light of the various limiting factors of time and weather, the number of new items added to the historical and cultural resources inventory during this project is remarkable to the investigators and would seem to indicate that many more items can be expected to be discovered as more people, agency personnel and/or tourists log more time in the Resource Area. Agency inventorying can be anticipated to continue in two directions: expansion of the broad-scale general location inventory into the areas adjacent to the Highway and River corridors; and increasing detail accumulation within these corridors.

It is important that a well-managed, continuing, inventory file be actively maintained in the Resource Area. It is the opinion of the investigators that the Fortymile Resource Area personnel have recently made a good start toward this objective in the process of recording their observations as they have flown, canoed, rafted, driven, or walked over most of the country within the Resource Area, but the work has just begun when placed in the context of the size of the area involved and the richness of the detail so far only hinted at.

The file data indicate that over the past four years BLM personnel have made contact with many of the knowledgeable and conversant old-timers within the Area. In several instances, these men have taken BLM investigators to specific sites in the field to help reconstruct the events and activities which took place on those sites.

Time and circumstances limited the investigators' opportunities to repeat or continue historical interviews with the knowledgeable local people who have lived and worked in the Fortymile Basin. Discussions with Mr. George Robinson at Wade Community and numerous people in Eagle helped us to fill many gaps in our knowledge. There is no question as to the value of these people in rounding out present

information for use in the future preparation of interpretive messages, both written and oral. The urgency to capture interviews with such people on audio and video tape cannot be stressed enough. These men are in a position to provide both general and specific information about events and sites within the River Basin. For example, short narratives on the history and operation of a particular element of machinery, such as the Jack Wade dredge, could be easily incorporated into a recorded message for use at the interpretive site.

Existing written records on the older mining claims, the owners of cabins and equipment, and other specific historic data are very limited at present. Much of the written material lacks any specificity of data on the basin ruins and pieces of equipment found at the sites indicated. In the time allocated for this study, it was simply impossible for the investigators to repeat interviews and revisit each site and/or structure. A delay in initiating the originally proposed work program limited the investigators' access to certain portions of the study area. Considering these limitations, a detailed rating for all known sites based on a comprehensive historical perspective is impossible at the present time. Consequently, the importance of the inventorying and evaluation of historic and cultural facilities, conducted on a continuing professional basis, cannot be overemphasized. However, the general historic development and cultural patterns of the Resource Area are definitely well-established and can serve as a basis for initiating an interpretive plan for the Fortymile Resource Area with the understanding that knowledge of the past will continue to grow in detail and, consequently, interpretive facilities will be able to grow in richness in the future. The plan described in the later sections of this report assumes that this knowledge will in fact grow in detail and, therefore, proposes the initial provision of general public information programs which are designed to grow in detail as knowledge, time, and money permit. Certainly, there is no time to lose in initiating a work program to develop interpretive facilities and devices in the Resource Area.

As a supplement to this report, all field notes, maps and

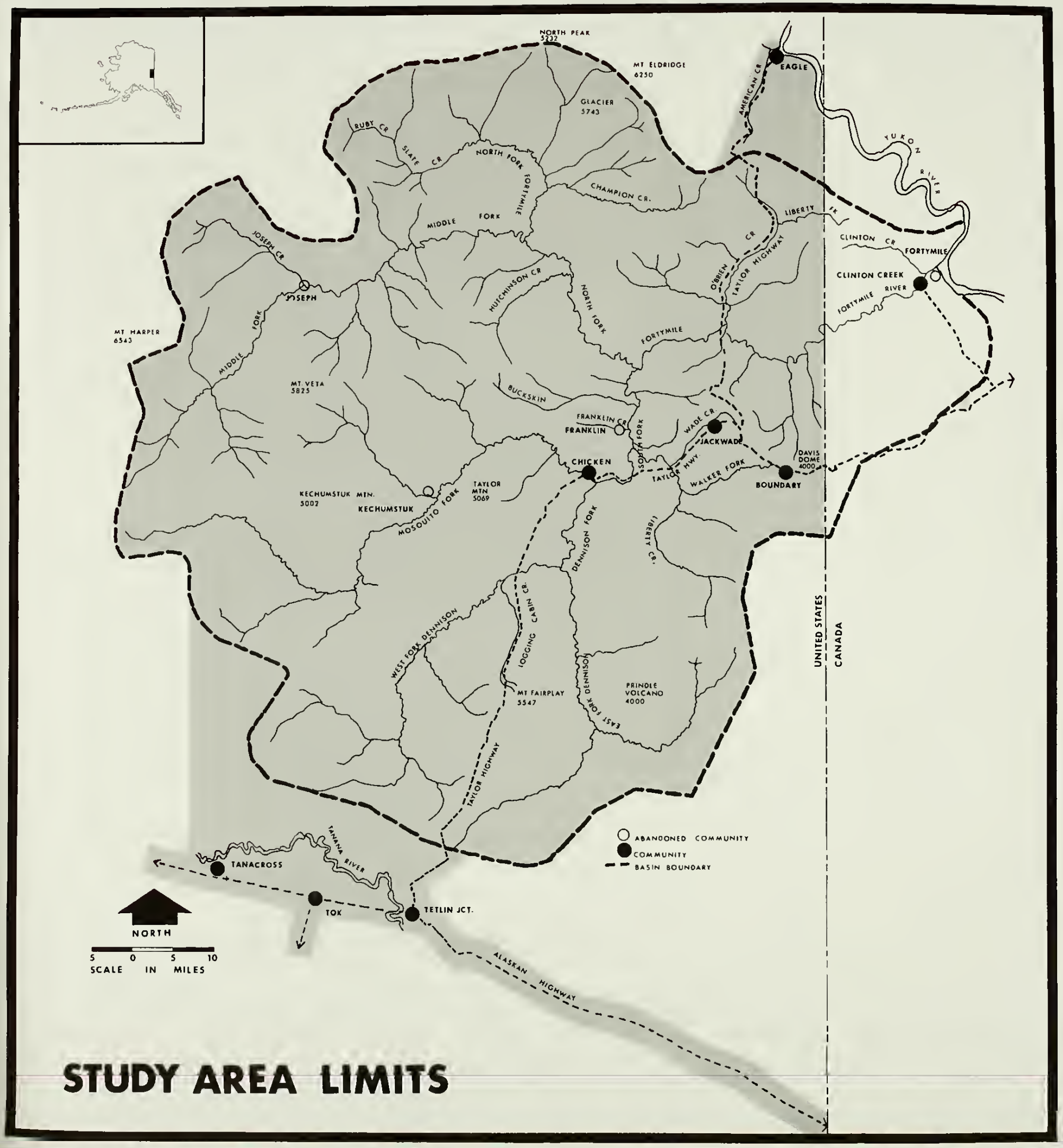


FIGURE 3. STUDY AREA

photographic materials collected by the researchers in the field during the summer of 1975 are submitted as additions to the existing BLM historical and cultural data bank upon which more specific future inventories can be developed. Information so added to BLM files has been incorporated into the existing format used for site descriptions and is obviously included in the River and Highway corridor interpretive plans of this report.

Techniques, Guidelines, and Priorities

The techniques, guidelines, and priorities to be considered to the Fortymile Resource Area in this study have been derived from an evaluation of the tourism-recreation potentials of the Area and in consideration of budget limitations for visitor management personnel in the foreseeable future. Consequently, the emphasis found in the following chapters of this report is on self-guiding visitor facilities and devices.

The Study Area

The Fortymile Resource Area is a 12,450,000 acre tract of land lying largely within the Tanana River Basin in east-central Alaska. It is bordered on the west by the Charley River; on the north by the Yukon River; on the east by the Canadian border, and on the south by the Tanana Valley, including a part of the Alaska Range on the southernmost limit. The Fortymile Resource Area is shown in Figure 2 and the base map for the study area within which this project was focused is shown in Figure 3.

Natural Features

A comprehensive inventory and analysis of the natural resource elements and processes within the Resource Area has been prepared by the Fairbanks District Office of the BLM. (47) Additional resource information is found in the Alaska Task Force report on the proposed

Fortymile National Wild and Scenic River. (12) Frequent reference will be made to these documents as necessary to develop the interpretive and outdoor recreation management plans of this report.

Historical-Cultural Resources

The Fortymile Area contains the site where gold was first discovered in interior Alaska in 1886. Mining activity has taken place on all major forks of the river utilizing a variety of techniques and tools ranging from the pick, shovel, and gold pan to the large steam-powered dredge and diesel tractor. (3) Major large-scale activity ceased after World War II. Today, a handful of full-time, bona fide miners operate on patent lands and active claims throughout the Basin. Recreational gold mining using small suction dredges appears to be a faddish novelty among many modern-day youthful soldiers-of-fortune and others seeking seclusion combined with an opportunity for just one last chance to achieve total social and economic independence. Many of those attracted by these lures come to the Fortymile lacking the basic knowledge and skills needed to be successful miners, not unlike several of their predecessors among the early "Fortyniners." However, many of the current adventurers are using the cabins and tools developed and left behind by the hardiest of their predecessors and, in so doing, are altering or totally destroying the principal stock of cultural resources within the area.

The principal cultural resources of the Fortymile Area are the cabins, tools, and pieces of machinery used in the various mining operations. These included a wide variety of carpentry tools, implements, and small mechanical devices used for gold mining. Larger machines located throughout the area include dredges, shaker boxes, boilers, small caterpiller tractors, winches, wagons, cable reels, pumps, and sluices. Many of these are located off the well-traveled routes. However, as more people gain access to the upper reaches of the river and camp in the old settlements along the main stem, a larger number of these artifacts become prey to souvenir hunters.

Current Land Use

Current land uses within the Fortymile Resource Area include watershed and wildlife habitat management, outdoor recreation, small town sites, and very limited mineral extraction activity. The area supports extensive stands of timber; however, no commercial logging is underway on the area. The land cover types are described in the Resource Analysis Report. (47) Camping, hunting, fishing, rafting, canoeing, hiking, and visiting historic sites appear to be the most popular recreation activities. A large percentage of the visitors are attracted to the historic town of Eagle which includes Fort Egbert.

Recreational Character

Tourism, as a general category, describes the principal recreation activity within the Fortymile Area. Traffic heading west from the Yukon Territory to Fairbanks passes through the Resource Area on the Alaskan Highway. The Taylor Highway, which runs from Tetlin Junction to Eagle and Boundary, is becoming a popular tourist drive from Alaska to and from Dawson City. There are several abandoned mining sites and mining relics which are accessible from the highway. The Jack Wade Dredge is a most conspicuous example of this. Also, some of the most striking scenic vistas of the interior Alaska landscape are visible from this highway. There are several river access points for raft floats and canoeing along the Taylor Highway. A wide range of outdoor activities associated with country of this landscape character attract many visitors. Because of the short summer and severe winters, most of the recreational use occurs from May through September. Examples of the natural and historical resources found within the Fortymile Resource Area are shown in Figure 4.

FIGURE 4. EXAMPLES OF THE NATURAL AND HISTORICAL RESOURCES OF THE FORTYMILE RESOURCE AREA

INTERPRETIVE TECHNIQUES

INTERPRETIVE TECHNIQUES

Goals and Objectives of an Interpretive Program

Visitor understanding and appreciation of the unique ecological character and cultural resources of the Fortymile Resource Area will be essential if a high quality recreation experience is to be obtained. Further, effective communication designed to create positive mind sets with respect to environmental conservation and resource protection will aid the BLM in effectuating a predominant policy of non-contact visitor management throughout the area. Accepting the almost certainties of limited manpower and operational funds, it will be important to utilize those communication devices which encourage visitors to use and enjoy the resources in a favorable manner. It is essential that strong efforts are initiated to discourage the many negative recreational behavioral traits which in the past have been manifest in the form of excessive littering, vandalism, interference with the recreational activities of others, and a general lack of sensitivity and awareness of the unique and fragile character of the environmental and cultural resources which constitute many recreational areas.

A thoroughly planned, tested, executed, and monitored interpretive system can play a vital role in the accomplishment of these resource management objectives. The key to a successful system will be the manner of communication, the messages and means of conveyance used to reach the visitor. Knowledge and understanding of behavioral interrelationships and interactions are important in dealing with the recreationist of the 1970s. It is reasonable to assume that if the appropriate information concerning the resource area is readily available those who select to visit the area will be attracted by those natural features unique to this part of Alaska as well as the wealth of cultural resources flowing from the rich and colorful history of human activity.

The interpretive system involves communication with the visitor concerning the natural and cultural resources of an area or site, the

desired manner of recreational behavior, and the nature of the managing agency in terms of its history, mission, and scope of activities. Putney and Wagar observed:

> By helping recreationists enjoy and understand the areas they visit, interpretation of natural and cultural history can add substantially to the quality of visitor experiences and therefore to the stream of benefits produced by such areas. (32)

Developing a comprehensive interpretive program is a complex activity involving an abundance of knowledge about an area and its resources as well as the input of persons skilled in interpretive techniques. The major constraints confronting the interpretive planner are time, money, and interest.

The interpretive plan serves as a guide for establishing the goals and objectives the system is to accomplish, identifying the items for interpretation, selecting the appropriate medium or device, and monitoring the response of visitors. These elements of the plan will be discussed in terms of how they should be incorporated into an interpretive scheme for the Fortymile Resource Area.

The principal goal of a comprehensive interpretive program should be to point out to the visitor the interrelated parts of the ecosystem, representative cultural elements, and the most striking scenic vistas of the area while encouraging positive visitor behavior. The objectives of a thoroughly planned interpretive program are:

1. Acquaint visitors with the major geologic, floral, and faunal elements and ecological processes at work within the area.
2. Inform visitors of the cultural patrimony of the area through the utilization of resources found within the site.
3. Constantly encourage visitor attention to the unique character of the resource and the need for prudent and rational behavior to ensure its protection and perpetuation.

Interpretive Media and Devices

Several types of interpretive devices can be utilized at specific sites within the area. Research has shown that the audio visual device is most effective in terms of the amount of information visitors internalize.

Interpretive devices consist of various structures and combinations of graphic elements. As with the other types of construction proposed for the project, the structures used to support interpretive devices should blend tastefully with the indigenous landscape.

Interpretive Graphics

Sign lettering should be simple and easily read. Sketch graphics should be contemporary, clear, crisp, and uncluttered. Major signs should be encased in weather proof units. An example of such a unit is shown in Figure 5. A majority of the directional and informational signs can be easily routed and painted at the project workshop.

The graphic system can be utilized as a major element of an interpretive unit. Several years ago an international graphic system was adapted in Europe. This system has found its way into the United States and is currently in widespread use in a variety of message systems.

The graphic system of communicating ideas, suggested actions, and forms of behavior is a powerful and yet simple vehicle of articulating an idea or concept. Because of the extensive use of "super graphics" throughout the media, a wide range of graphic symbols are finding their way into the image bank of a sizable segment of the population.

The use of graphic symbols to suggest and reinforce positive behavior can take several forms. A few suggested examples of behavior suggesting graphics are shown in Figure 6.

The ability to create a distinctive identity for a large area such as the Fortymile Area poses a difficult and awkward problem for the managing agency. The need for such an identity is imperative if the visitor is to develop an appreciation for the Fortymile Area as an entity composed of natural, historical, and cultural elements. The

FIGURE 5. WEATHERPROOF INTERPRETIVE UNIT

interpretive program should stress the interrelationship of these elements and the role each has played in the evolution of the present-day Fortymile country. The management and interpretation of the Fortymile Region should be reinforced by a comprehensive graphics system which can establish visitor communication while providing essential information.

A comprehensive interpretive graphic system should be composed of three functional categories:

1. Identification -- This category includes agency-area logos which could be used at each entry and on all interpretive stations along the highway and river corridors, at each visitor contact station, and on all printed material which may be published for visitor use. In situations where there is a shortage of field personnel, a combination of special area plus agency logo can be an extremely effective means of aiding the visitor in associating the resource area with the managing agency and its mission.

2. Informational/Directional -- This graphics category could be used along highway or river corridors and may be used independently or in conjunction with the interpretive graphics system and would serve as a supplement to the State Highway Department's road signs. This graphic category would contain all explanatory signs and could include warnings, rules, and regulations or brief trail descriptions at their point of origin.

3. Interpretive -- This would be the largest and most important category. Interpretive symbols would appear at all interpretive points within the highway or river corridors, all visitor contact stations, and interpretive brochures and publications.

Although there will be three functional categories within the graphics system, it is possible to achieve a uniformly coordinated graphic character by the consistent use of lettering style, design, format, and color scheme. This graphic character must be developed so that every sign will indirectly communicate to the visitor that he is within the Fortymile Resource Area.

NO HIKING on this TRAIL or AREA

PLEASE DISPOSE of LITTER in CONTAINERS

PLEASE BREAK MATCHES

FIGURE 6. BEHAVIOR SUGGESTING GRAPHICS

Design of Graphic System

The selection of an appropriate lettering style is essential to the success of an effective graphics program. The selected style must be well suited for use in all functional categories. It must be easy to perceive at a distance and comfortable to read in longer interpretive messages.

Background Contrast -- Readability is greatly affected by the contrast between the letters and the sign background. The distance from which the sign will be read will determine the appropriate background to be used for that sign. Signs which must be seen from greater distances, such as those to be used along the highway and river corridors, should have light backgrounds with dark lettering. This relationship will effectively utilize the sign mass to attract the visitor's attention at a much greater distance, thereby increasing perception time.

Signs which will be read at close range, such as those which would be used at interpretive stations or along trails, should have dark backgrounds. A dark background will blend with background vegetation and will reduce reflective glare and make reading of messages easier, especially in bright sunlight.

Lettering Style -- Several techniques can be utilized to create a graphic character. The most obvious and successful would be the use of a single lettering style which would appear in all the graphic categories. The selected style must be easy to read at 30 mph in an automobile, must be capable of being perceived at 100 yards to allow a river traveler adequate time to decide to beach, and should lend itself to good graphic composition for use in publications. The width of the letter should be as great or greater than height, letters should be composed of a minimum number of bold strokes, and the lettering style should be easy to reproduce.

Sign Design for Use Within a Highway Corridor

Within a highway corridor, each of the three functional categories could be utilized. As discussed earlier, these signs must be designed

to be read from a distance of 200-300 feet. These signs must be composed of dark letters on a light background. Messages on these signs must be concise and brief. Symbols should be used whenever possible. In order to minimize the visual impact of lengthy verbal highway signing related to the interpretive program, a system of symbols should be developed to alert visitors as they approach interpretive points within the corridors. These symbols may be keyed to the highway mileage markers. This will allow for easy location reference in interpretive publications and maps. Figure 7 illustrates some examples of possible symbol graphics which may be used in a highway interpretive program.

Figure 8 shows a recommended design for a typical highway informational sign. The key to a successful highway graphics system is the flexibility which may be achieved in its design to fit appropriately into various sites and accommodate a wide variety of messages.

Entry Points

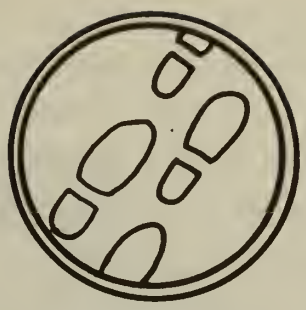
At each of the significant entry points a graphic display should be designed to establish a sense of arrival for all visitors. In addition to identifying the management area and the managing agency, a map may be displayed which would identify major features within the area. This would be an excellent point at which to initiate the visitor education program.

River Corridor

The graphic system for interpreting the river features can be used in a manner similar to the highway graphic system. Through the river brochure, a variety of messages can be conveyed. Where appropriate along the river, graphic signs and messages can be inconspicuously located to inform and direct river travelers.

A graphic logo is a powerful device for creating an identifying and unifying element within an interpretive system. Over the years, most, if not all, of the federal resource managing agencies have developed an identification logo. Perhaps the most well known is the

DRIVING



WALKING

RIVER

CAMPING

HIKING

PICNICKING

GOLD MINING

FIGURE 7. INTERPRETIVE GRAPHIC SYMBOLS FOR HIGHWAY CORRIDOR USE

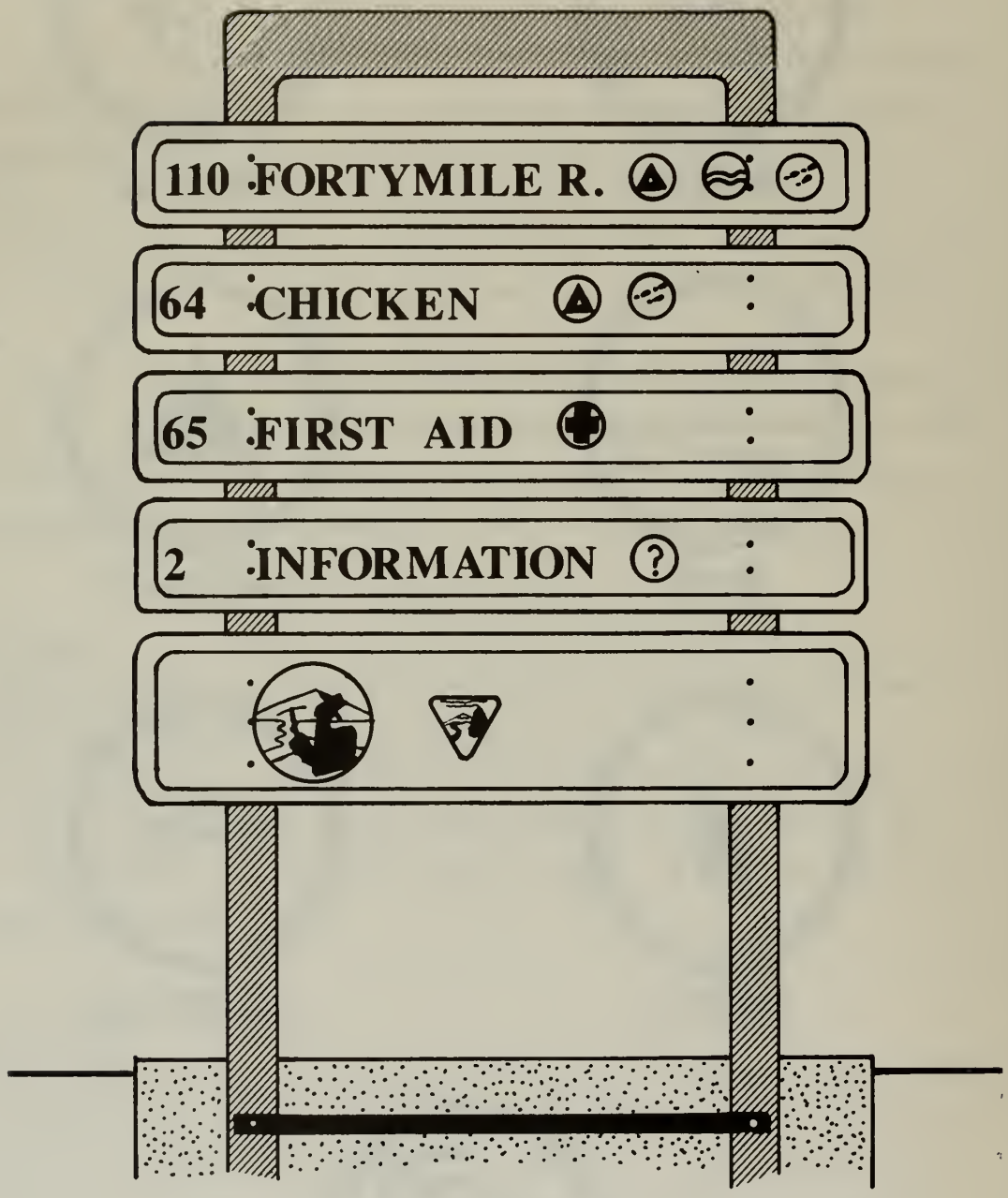


FIGURE 8. TYPICAL HIGHWAY INFORMATIONAL SIGN

arrowhead logo of the National Park Service. In Alaska, the BLM logo appears most frequently. It is through association with its logo that a large number of people identify with a particular agency.

The graphic logo can also be used to establish a theme for an area such as the Fortymile. An example of several logos and a suggested Fortymile logo is shown in Figure 9. This type of logo should be incorporated into signs, brochures, and other printed material. All reference to the agency and the area should use the dual logo.

In addition to the area logo, special element logos can also be used. For example, in the Fortymile area a special logo could be used exclusively for the river interpretive message system as well as a separate logo for the Taylor Highway. These would appear on all of the interpretive signs, brochures, and related devices. A special sub-theme emerges with the use of the logo.

Items to be Interpreted

There are numerous natural, cultural, and scenic resources within the area which can and should be brought to the visitor's attention through the appropriate interpretive device. Also, there are many visible examples of active ecological processes at work. The visitor's appreciation of the area can be greatly enhanced by a thorough understanding of these elements.

Selection of items to be interpreted should be based on a general theme for consistency. This should be presented initially at the major interpretive facilities and fully developed throughout the system.

The number of features identified is critical in terms of selecting the most appropriate items for interpretive treatment. Elements should be selected that visitors would be naturally curious about, even though occasionally they may not be integral components of the area theme. Rare and unique features or elements with hidden significance should receive emphasis. Some features of human origin or situations influenced by human activity can be utilized to impart particularly important messages or concepts concerning human/resource interactions over time.

FIGURE 9. SAMPLE LOGOS

Interpretive Devices

Selection of the appropriate interpretive device is conditioned by several factors. These are:

a. Character of the site
b. Number of elements to be interpreted
c. Climatic conditions
d. Nature of the unit where the device is to be located, i.e., indoor vs. outdoor
e. Expected volume of use
f. Level of supervision at the site
g. Types of elements which can be prepared as components of an interpretive exhibit device, i.e., photos, newspaper accounts, field notes, maps, articles of clothing, utensils, tools, etc.

The elements for interpretation within the area are classified as natural, historical, and cultural. Natural are elements of the environment; historical are artifacts from past human activity as well as sites where notable events occurred; and cultural are elements which are descriptions of processes and procedures, i.e., mining, construction, writings, travel, and the like.

Several devices appear to be applicable for interpreting the Fortymile system. These are:

1. Interpretive dioramas which utilize photos, etchings and engravings, paintings and maps
2. Plaques and small signs
3. Enclosed displays
4. Scale models -- dredges, mining equipment
5. Cut-away profiles, i.e., winter mining, geologic formation, soil formation, perma frost
6. Relief maps
7. Equipment reconstruction
8. Refurbished sites -- cabins, caches
9. Automatic message repeaters
10. Photo belts using historic photos

11. Reverse screen slide projectors
12. Limited range AM (600 kc) automated radio broadcast units
13. Automatic motion picture projectors utilizing the reverse screen to show film shorts of recreation, wildlife, and living history within the area
14. Electronic matching boards and quiz games. The latter have been used successfully by the Forest Service. Research has shown that these devices stimulate interest, learning, and attitude formation (51)

Examples of some of these devices are shown in Figure 10.

From within the site, there are some specific elements which, if available, can be effectively used in preparing interpretive exhibits. These are:

* diarys
* newspapers and magazines
* books
* personal photo albums
* company records
* state records and archives
* claims office files
* bills of lading
* special reports
* first hand accounts

These suggestions are to serve as guidelines for developing explanations for interpretive sites short of on-site rangers or interpretive personnel. The site specific plans suggest where each device would be most appropriate. An example of a typical installation of an interpretive device on a self-guided trail is shown in Figure 11.

Message Content and Construction

Interpretation is the successful transmission of information to clientele groups. Facilities and methods are simply means to this end. The vehicle of interpretation and the interpretive process is the

FIGURE 10. EXAMPLES OF INTERPRETIVE DEVICES

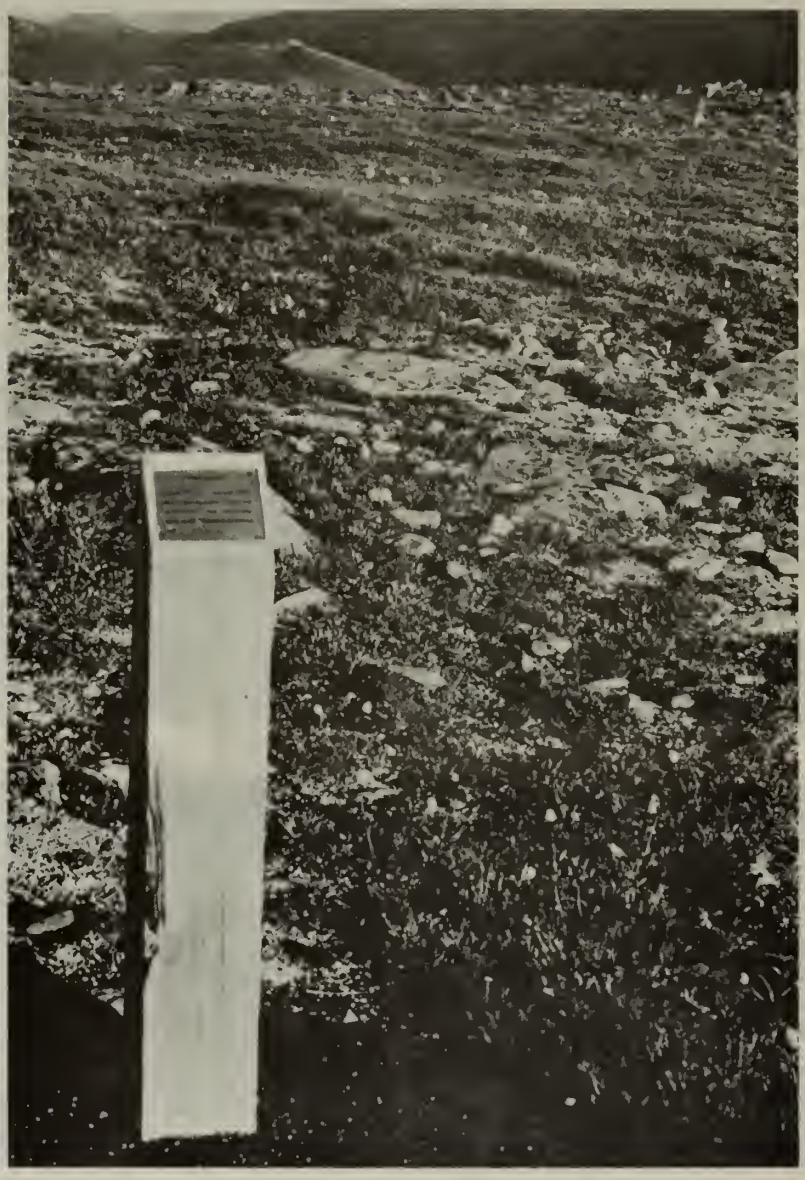


FIGURE 11. TYPICAL INSTALLATION OF AN INTERPRETIVE DEVICE ON A SELF-GUIDING TRAIL

message. Therefore, if interpretive messages are not communicated, the fault is usually in the message and/or vehicle used to convey the message.

Successful interpretive message development involves careful planning. The comprehensive interpretive program should be wholistic nature rather than simply a potpourri of isolated facts scattered throughout a cluster of unrelated units. Effective interpretation, according to Wagar, should be dynamic, rewarding, easily obtained, tailored to diverse visitors, and meaningfully structured. (52)

The key is to attract and hold the visitors' attention. Good message construction involves consideration of the clients, their behavioral patterns, a need to be rewarded for successful learning and the development of positive behavioral traits, and the procedure to be used in transmitting the information. Message construction is simply the process of utilizing good written and spoken communication. In general, interpretive messages should utilize both words and symbols. In forming the message, several points should be carefully considered. There are:

1. How much information should be presented in the time available?
2. What are the media strong points?
3. How does the topic relate to the day-to-day life of the visitor?
4. What should the visitor know or be able to do as a result of the interpretive effort?

Sentences used in interpretive messages should be short. Use of large words, technical terms, or agency jargon should be avoided. Listening is preferable over reading when possible because people can then view the object or attraction while hearing about it. Also, more detailed information can be presented without causing visitor fatigue.

The U. S. Forest Service has developed some very useful guidelines for writing interpretive messages, a substantial portion of which have been reproduced on pages 46 through 51.

Excerpt from Developing the Self-Guiding Trail in the National Forests. (14)

WRITING INTERPRETIVE TEXTS

EFFECTIVE WRITING

Effective interpretive texts and imaginative titles are essential to the success of a self-guiding trail. To be effective, they must be interesting enough to be read, clear enough to be completely understood, and must communicate information worth knowing.

Writing the texts demands a thorough understanding of the subject to be interpreted, and the ability to communicate understanding to the visitor. Such composition requires much thought and a precise use of language.

WRITE FOR COMPLETENESS, CLARITY, AND ACCURACY

Texts interpreting a trail, whether for use on signs or in a leaflet, must be written so that each is complete in itself. As a rule, each should cover only one subject and should be limited to one or two of the most important ideas or facts concerning it. At the same time, texts taken together must present a well-balanced intrepretation of a trail without noticeable duplication of information.

Trailside texts should be short, seldom more than 50 words. Even though visitors usually do not want to read anything much longer, clarity should never be sacrificed for brevity. A longer, well-written text will be read through more often than one that is shorter but poorly written.

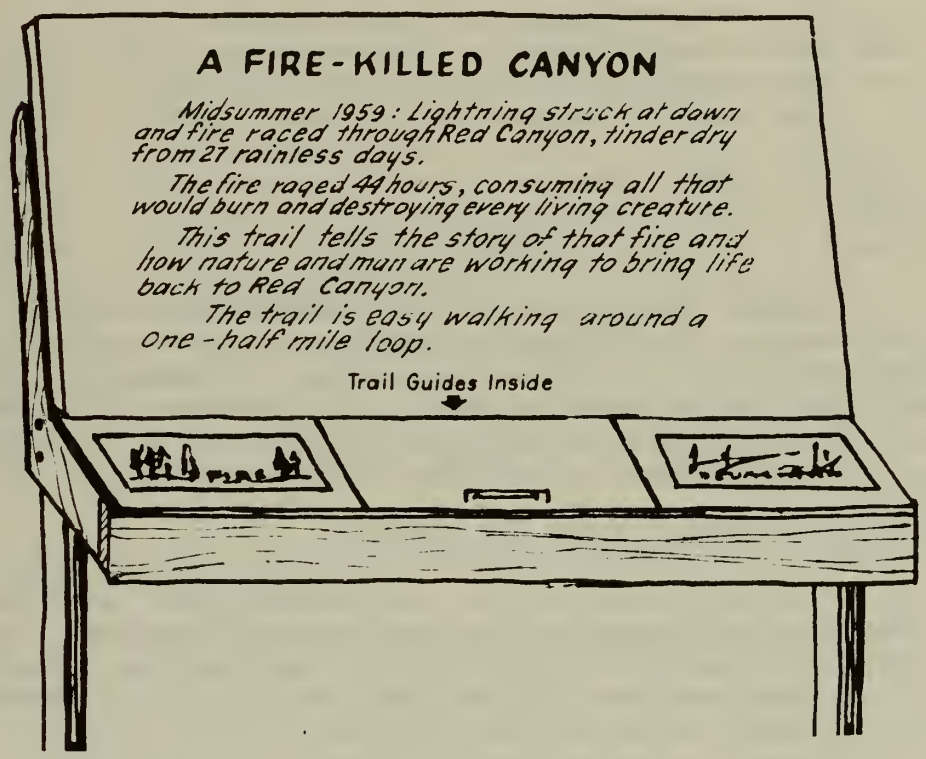
An interpretive text may contain information for the professional scientist, but its first obligation is to the general public. Technical or unfamiliar words, and complex concepts, should be avoided unless they can be explained and their presence adds something to the text.

In keeping texts brief, guard against oversimplification that may not teach a visitor anything new, and thus bore him. A statement is not oversimplified if it contains enough information to give the visitor a clear understanding of the subject, if it does not mislead him to a false conclusion or imply one, and if it adds to his knowledge.

Accuracy is all-important. Facts, spelling, punctuation--even the exact meaning of words--must be carefully checked several times. Errors can occur in any step of sign construction or leaflet preparation.

AN ENTRANCE SIGN MUST MOTIVATE

The text for an entrance sign, including a provocative name for the trail, is often the most difficult of all to write because it must get the visitor's attention and, almost at a glance, communicate so much information. Typical of too many trails are easy-to-write names like Hickory Ridge Nature Trail that do not incite the visitor's interest. More imaginative titles as A Fire-Killed Canyon, and Mountain Medicine, are interesting because they are indicative of the interpretation awaiting the visitor.



In addition to an arresting title, the entrance sign should preview the trail's attractions, telling the visitor something of what he could see or why he would enjoy the trail. It should also tell him the length or walking time, the trail's condition, and where it ends. All of the text, and the trail's name, should accomplish the important purpose of making the visitor want to take the trail.

CHOOSE TEXT FORMS WITH CARE

The final composition of an interpretive text may take many forms. It may be descriptive, story-telling, specific, provocative, familiar, humorous, or a combination of two or more. But unless the writer is skilled, he should depend primarily on the descriptive, story-telling, or specific

text forms. The familiar and humorous forms are difficult, and if not skillfully written are often ineffective or even offensive to the visitor.

Following are sample interpretive texts.

DESCRIPTIVE

BUTTE

The "greatest mining camp on earth" built on the "richest hill in the world." That hill, which has produced over $2 billion worth of gold, silver, copper, and zinc, is literally honeycombed with shafts, tunnels, and excavations that extend beneath the city. There are over 3,000 miles of workings, and shafts reach a depth of 4,000 feet.

Adapted From Montana State Highway Historical Sign

STORY-TELLING

EMIGRANT GULCH

A party of emigrants who had traveled with a wagon train across the plains via the Bozeman or Bonanza Trail arrived in this gulch August 28, 1864. Two days later three of these men explored the upper and more inaccessible portion of the gulch and struck good pay. A mining boom followed.

From Montana State Highway Historical Sign

SPECIFIC (DETAILS ABOUT ONE SUBJECT)

Flat top, short needles, and generally poor appearance indicate that growth in this tree has nearly stopped. The forester marks this type of tree for early harvest cutting.

From the Black Hills National Forest, U. S. Department of Agriculture, Forest Service

LIFE-GIVING SUN

These young Douglas-firs owe their lives to this opening in the forest, for it allows them the full sunlight they must have to survive.

The opening was made when mature Douglas-firs were harvested from this 40-acre cutting unit. The soil, cleared of all trees and left open to the sun, was then ready to grow another timber crop.

SIGNS AND LEAFLETS NEED GOOD DESIGN

THE PURPOSE OF GOOD DESIGN

All basic design elements, as well as the setting and theme of a trail, must be considered when designing an interpretive sign or leaflet. Good design attracts attention, and gives trail signs and leaflets a quality which means to the visitor that here is something that has been carefully prepared, probably by a professional man, and therefore is authentic and worth reading and knowing.

The design of leaflets should not be a problem to the . . . interpretive planner, for expert help is readily available to him. He should, however, be aware that an important consideration particular to the self-guiding trail leaflet is that it be easy for visitors to hold and to read while walking or looking at features. A leaflet opening from the side is usually easier to handle than one opening from the bottom. If it is small enough to go into a pocket without too much folding, visitors are more apt to take it home for further reading than to discard it, possibly on the ground. Very small or "fancy" printing type should be avoided. For leaflets used outdoors, a tinted paper stock is recommended as being easier on the eyes than white stocks.

Since the designing of interpretive signs is relatively new . . ., the interpretive planner should keep the following in mind when working with those responsible for designing and producing signs.

BASIC DESIGN ELEMENTS

An interpretive sign should harmonize with its forest environment and should never be obtrusive, particularly because of size. Its size should be determined by its location and by the distances from which it will normally be read. A small sign, if properly placed, can be as effective as a large one.

The shape of a sign should serve as a visible but unobtrusive frame for its subject matter. It is wise to avoid novel forms. They soon become dated.

Textural interest can help a design if the material chosen is appropriate to subject and surroundings. Again, avoid novelty, because it draws attention to the sign itself--the means--and reduces attention to the idea or message you want to convey--the objective.

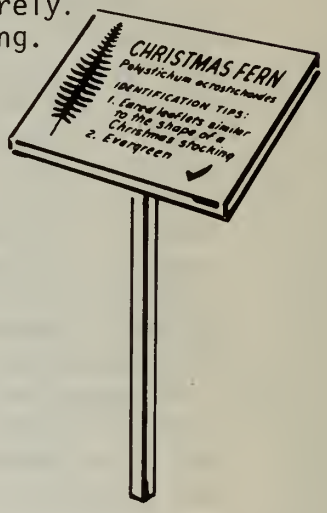
Color and illustrations are excellent aids in achieving the brevity, clarity, and visual appeal required for trail signs. Illustrations help attract visitors to one sign after another. Just text matter, good though it may be, looks dull at a glance. Colors can be vivid in small amounts, but backgrounds and large areas should appear in neutral colors

appropriate to a forest setting. Illustrations can be accomplished by simple outline routing, more elaborate painting, photographs, or weatherproof cutouts.

MAKE SIGNS EASY TO READ

The ease with which a sign can be read depends greatly on color contrasts, on the size and style of letters, and on spacing around letters and between words, sentences and lines. Letter size should be in proportion to the distances from which the sign will normally be read. The style used should be appropriate to the subject and easy to read. Novel lettering should be used with care, and then only rarely.

Spacing should be adequate for ease in reading. Never run sentences together like this.Never let spacing be so irregular as to make words in a sentence seem disconnected.



DO NOT CAPITALIZE AN ENTIRE TEXT, DO NOT CROWD IT WITH INADEQUATE MARGINS, AND DO NOT USE THE SOLID BLOCK FORM. SUCH SIGNS ARE VISUALLY UNINTERESTING AND THEIR TEXTS ARE HARD TO READ. UPPER AND LOWER CASE LETTERS MAKE SENTENCES AS WELL AS PROPER AND PLACE NAMES MORE DISTINCT. PARAGRAPHS, INDENTED OR NOT BUT WITH EXTRA SPACE BETWEEN THEM, MAKE A LONG TEXT EASY TO READ, MORE PLEASING TO LOOK AT.

MOUNTAIN MEDICINE

"Grandma" Ellie Pratt harvesting "Yarbs" - 1931

A generation ago the isolated and independent people hereabouts used home remedies when sickness struck.

Some of the plants they used for remedies are featured along this half-mile loop trail.

OZARK NATIONAL FOREST
U.S. DEPARTMENT OF AGRICULTURE · FOREST SERVICE

PROCEED WITH CAUTION

One of the most important phases of design is the layout; that is, the placement of text and art in relation to each other and to the background provided by a sign or a leaflet. If the design is good, then all elements will be combined in a unified arrangement that is both pleasing and effective. Whether this final arrangement is symmetrical or asymmetrical, it must give proper emphasis to each element.

At this point, proceed with caution. With the layout on the drawing board, study the design and each of its elements both separately and as a unified whole. If changes or improvements are indicated, make them now. The investment in a drawing board layout is small compared to that of a completed sign.

ORGANIZATIONAL IDENTIFICATION

When writing and designing a complete set of interpretive and informational signs for a self-guiding trail, plan the placement and frequency of organizational identification so as not to interfere with the primary purposes of the trail and its signs.

If a trail begins at a campground, overlook, or other location where the organization is clearly identified, identification normally should not be repeated at the trail entrance. Otherwise, the organization should be identified either on the entrance sign or on a separate sign nearby. In either case, identification should not detract from the entrance sign or its text. . . .it is always appropriate to identify the organization modestly at the end of a trail with a separate sign which may express the hope that the visitor enjoyed the trail, or may direct him to other trails or facilities.

Trailside signs generally should carry only the interpretive text. Organizational identification on each sign would compete with the interpretation and would become monotonous, probably with adverse effect on the visitor. An exception might be made on a longer trail, with the organization identified about midpoint on a directional or informational sign.

The selection of media is extremely important. People enjoy devices that show, very easily, how a phenomena works rather than simply telling about it. The presentation should appear informal, thus keeping the visitor in a relaxed frame of mind. In other words, the message should utilize light rather than heavy verbage which becomes burdensome to read and comprehend. A successful message includes frequent questions which serve to keep attention focused on the message. It has been suggested that media used for entertainment are more successful in interpretation than those typically used for education. Considerable success has been obtained from the use of closed circuit television, animated presentations, short films, short range radio transmitters, and message recorders.

Research has shown that people tend to persist in doing things they find enjoyable and rewarding. Interest is kept high by allowing people to test their knowledge of information gained through the interpretive process.

Selection of the most appropriate interpretive device involves several considerations. The following, found in Hannah, is taken from the work of Thompson of the National Park Service:

BEFORE THE FINAL PLAN

. . . the interpretive prospectus

> Implementation of the interpretive master plan can be made much more meaningful to the park visitor if an interpretive prospectus is prepared as part of the planning process. The prospectus will lead you through a series of questions that will help you prepare the most effective interpretation of your subject matter.
>
> I. What are the objectives of the interpretive program?
>
> What do you want to communicate? What do the visitors want to see and hear?
>
> Remember the words of Freeman Tilden, "not instruction, but provocation." How do you want your visitor to change as a result of your interpretive program?
>
> You should frequently refer back to your statement of objectives to make sure your plans are designed to accomplish these objectives. Avoid trying to

tell all the people as much as possible as soon as possible.

II. What are the factors influencing your selection of interpretive means?

What do you want to communicate and does this in any way dictate your choice of interpretive means? Are there any particular media or methods that are best suited to your message?

Does the message involve sounds or objects? If so, they should be used.

Is the message so detailed or complex that it should be presented in the printed word? Is it important to present the message in a particular location? Is the audience or message so variable that uniformed personnel will be required?

Analyze all aspects of your visitor use picture and how they might affect your interpretive means. What are the most asked questions? Is visitor use even or does it fluctuate? How long do they stay?

What environmental factors should be considered? Is it too hot for outside programs? Will dust foul electronic equipment? Will road noise disturb evening programs?

III. What are the functions you want to assign to interpretive media?

Will some of your subjects need to be repeated at different locations or on different levels of presentation?

Your experience should be your guide in anticipating the best media to represent your subjects. No subject should be presented through a poorly suited medium.

IV. What should be included in the outline of interpretive content?

An outline should be presented describing the message to be conveyed by each audio-visual program, exhibit, publication, talk or other facility or service. If the program materials are to be produced by some other person, the suggested content outlines should be quite detailed.

Will your outlined content achieve your objectives?

V. What is the research status?

What specific research actions are needed to prepare the final scripts/plans? Have you allowed enough time to schedule research well in advance of the start of final preparations? Is staff available to accomplish the research?

VI. What will be the staff requirements of the expanded interpretive program?

What existing staff positions are presently committed to interpretation? What new positions will be required? List permanent and seasonal positions needed to man the expanded interpretive program.

Can you fully explain or justify each proposed staff increase?

VII. How well do your study collections support the expanded interpretive program?

Will collections have to be added? Where will the new materials come from? Can collections be acquired? Should collections be accepted on loan?

VIII. How much will it cost to see this prospectus to reality?

What will the individual segments of the interpretive prospectus cost to develop? Do you have experience in making cost estimates for interpretive projects? If not, seek assistance. Has a nearby park area recently completed a similar project? (45)

A variety of interpretive message types is shown in Figure 12. Many of these examples combine written messages, photographs, sketches, and graphic symbols.

Some final thoughts on developing the interpretive scheme include consideration of those aspects of the program which are highly flexible and can be changed by season of the year or by content of exhibit. These types of changes add a new dimension of interest to the program. Through the use of seasonal rangers or with assistance from outside conservation groups, special ecologically-oriented types of participation involving hikes, living demonstrations, and special shows could be utilized to increase visitor awareness, interest,

appreciation, and enjoyment. Local residents in the Fortymile Resource Area may be a valuable source of such assistance.

Recent research findings by Shiner and Shafer on the amount of time people spend looking and listening at resource-oriented exhibits suggests some guidelines for preparing successful displays for use in such a center. (36) The time spent by visitors to view several exhibits was measured and compared against the actual time required to read the message. The results are presented in Figure 13. A summary of the findings suggests:

* Visitors look at displays only fifteen to sixty-four percent of the total time required to read or listen to the total message.
* The longer the printed message a display contained, the shorter the viewing time.
* Younger visitors spent more time reading the material and viewing the exhibits than older people. Younger people comprised the highest percentage of summer visitors while older people were the principal autumn visitors.

The data suggests that the types of displays which held visitors' attention for the longest time period were the exhibits that were mechanical, like the photo belt, or those which exhibited the greatest amount of realism. The study did not attempt to vary the length or content of the message nor did it attempt to determine how much the visitor retained.

An important consideration in the planning of a message system for interpretive stations is the opportunity to utilize such devices as subliminal perception through the audio-visual media. As was suggested in the discussion of interpretive theory, the message construction and impact can play an important role in the process of mentally conditioning visitors for favorable behavioral response. The first planting of ideas and concepts designed to create the desired mind sets can occur at these initial contact stations. These ideas can be continually amplified and reinforced throughout the entire system of site or unit specific interpretation.

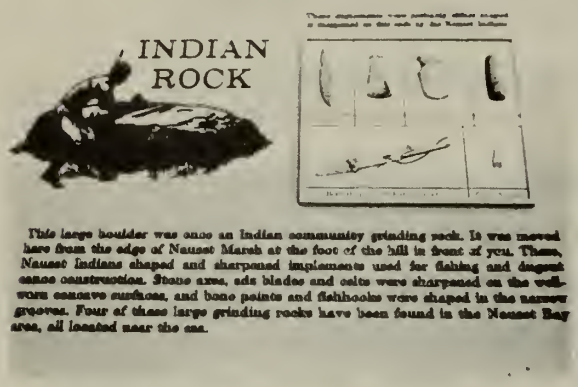


FIGURE 12. SAMPLE INTERPRETIVE MESSAGE TYPES

FIGURE 12. (Continued)

FIGURE 13

TIME SPENT VIEWING INTERPRETIVE MESSAGES

Display	Average Time to Read Entire Message	Average Time to View Exhibit	Average Percent of Required Time Visitor Used
Relief Map	5.3	1.6	30
Geologic History	3.1	2.0	62
Woodland Painting	4.5	1.1	25
Lake Painting	2.7	1.0	37
Diorama	2.1	1.3	64
Log Section	2.3	1.0	43
Introduction to Currier and Ives Prints	6.3	2.1	33
Cabin and Firewood	3.3	1.9	58
Firearms	15.5	2.5	16
Historic Vehicles	6.1	3.9	64
Logging Equipment	7.0	2.7	39
Historic Photos in Photo Belt	28.0	10.1	36
Part of a Boat	28.5	6.8	23

SOURCE: James William Shiner and Elwood L. Shafer, Jr. "How Long Do People Look at and Listen to Forest-Oriented Exhibits," USDA Forest Service Research Paper NE-325 Northeastern Forest Experiment Station, Upper Darby, Pennsylvania, 1975.

Wagar and associates have discovered that participatory types of interpretive games which present challenges, are fun, yield positive rewards, and are effective communication tools. Electric matching boards, environmental knowledge tests, and location identification boards are fun for young and old alike. Such devices, as illustrated in Figure 14, are easy to design and construct. The simple electrical systems can be operated with battery power. (51)

Interpretive messages, transmitted through a variety of media can be used to accomplish several visitor management objectives. These are:

Behavioral Modification -- A major function of the interpretive scheme is to spur the visitor to act in a positive manner. In essence, contained within the entire message system should be the underlying theme of understanding, appreciation, and action in a specified manner.

Understanding -- The visitor should be made aware of the unique character of the natural and cultural resources of the area.

Appreciation -- The visitor should gain a sense of value with respect to the natural and man-made resources of the area. In so doing, the visitor should feel a very conscious need to treat these resources with care and respect so they will remain for others to enjoy. In a very real sense, a feeling of guilt should be developed if the user misbehaves--so to speak--in activities within the area. To borrow from the National Park Service, a visitor to the Fortymile Resource Area should take only pictures and pleasant memories and leave only footprints. The urge to deface property, vegetation, and the landscape in general should be subdued if not completely eliminated.

Action in a specified manner -- If the interpretive messages relay the appropriate information, we should expect the rational and responsible recreationist to behave in a positive and respectable manner. Increased knowledge of the sociological profile of the potential or average user of the Resource Area made available to the recreation planner will enable a better structuring of messages to appeal to the user in an acceptable manner. For example, it goes without saying that the following behavior would be desirable within the

FIGURE 14. ELECTRONIC INTERPRETIVE DEVICE

SOURCE: Wagar, J. Allan, The Recording Quizboard: A Device for Evaluating Interpretive Services, U.S.D.A. Forest Service, PNW 139.

Fortymile Resource Area:

* Utilization of plastic bags at the trailhead registration station to carry trash out of the area.
* Camping only in the designated camping areas. Exercise extreme caution with fire.
* No removal of any plant materials, including green wood for camp fires.
* No removal of any archaeological or natural objects such as artifacts, rock specimen, pieces of furniture, etc., from historical buildings.
* No carving, cutting, or otherwise defacing signs or other interpretive devices.
* Minimum disturbance of wildlife.

This list of prohibitions is by no means inclusive. In essence, what is desired is a form of reverse behavior on the part of the visitor. Examples of various signs utilizing conventional messages, graphics, and a combination of message and graphic are shown in Figure 15.

Experience in park administration has shown that, for the most part, people tend to react negatively to blanket and blatant prohibitions such as "DO NOT WALK ON THE GRASS" or "DO NOT PICK THE FLOWERS" or the infamous "DON'T FEED THE BEARS." The point is simply this--people today are better informed about many things and therefore are less inclined to be told to do something without being given a plausible and acceptable reason. (34) They want to understand why, for example, they should not pick wild flowers or feed animals or should carry their trash out, or why they cannot operate their high horsepower outboard motors on the Fortymile River.

Behavior inducing messages need to appeal to these kinds of sensitivities. They must be powerful, yet gently and constantly reinforced in such a way as to not appear as condescending and insulting to the visitor's intelligence and sense of propriety. For example, the manager can utilize as an educational tool certain aspects of the Federal Antiquities Code as the basis for encouraging visitors to respect the treatment of historical and cultural objects found within the site. As with any personal contact by agency employees, the

FIGURE 15. TYPICAL INTERPRETIVE AREA WITH COMBINED GRAPHIC DISPLAY AND INTERPRETIVE MESSAGE

SOURCE: Reproduced from U.S.D.A. Forest Service paper, #NE 297.

interpretive communication should strive for ordinance education and understanding first and strict enforcement second.

Behavior motivating message units can be carefully incorporated into audio, visual, and written devices. Placement of clear reminders in such places as toilet and shower buildings, at drinking fountains, at picnic tables, parking lots, and the like will constantly reinforce the behavioral concept. Observing uniformed personnel, for example, utilizing proper conduct can be effective. Dealing firmly with flagrant offenders will also have a very positive effect. In short, this will make the non-visitor contact form of management begin to work efficiently as a park management tool.

As summary of these message types is shown in Figure 16. These message units can be used in several settings throughout a recreation area.

Sample Interpretive Messages

There are several kinds of interpretive messages which can be used in the interpretive program for the Fortymile Resource Area. The major categories in which the message types fall are:

* Welcome
* General Orientation
* Specific Elements -- Historical and Cultural
* Behavioral (Rules and Regulations)
* Natural Resources and Processes
* Scenic Vistas
* Sites of Specific Events

Woven throughout the message system should be several key thoughts or concepts. These are:

* The fragility and perishability of both natural and cultural resources
* The uniqueness of these resources
* The increasing value of these resources to future generations of visitors

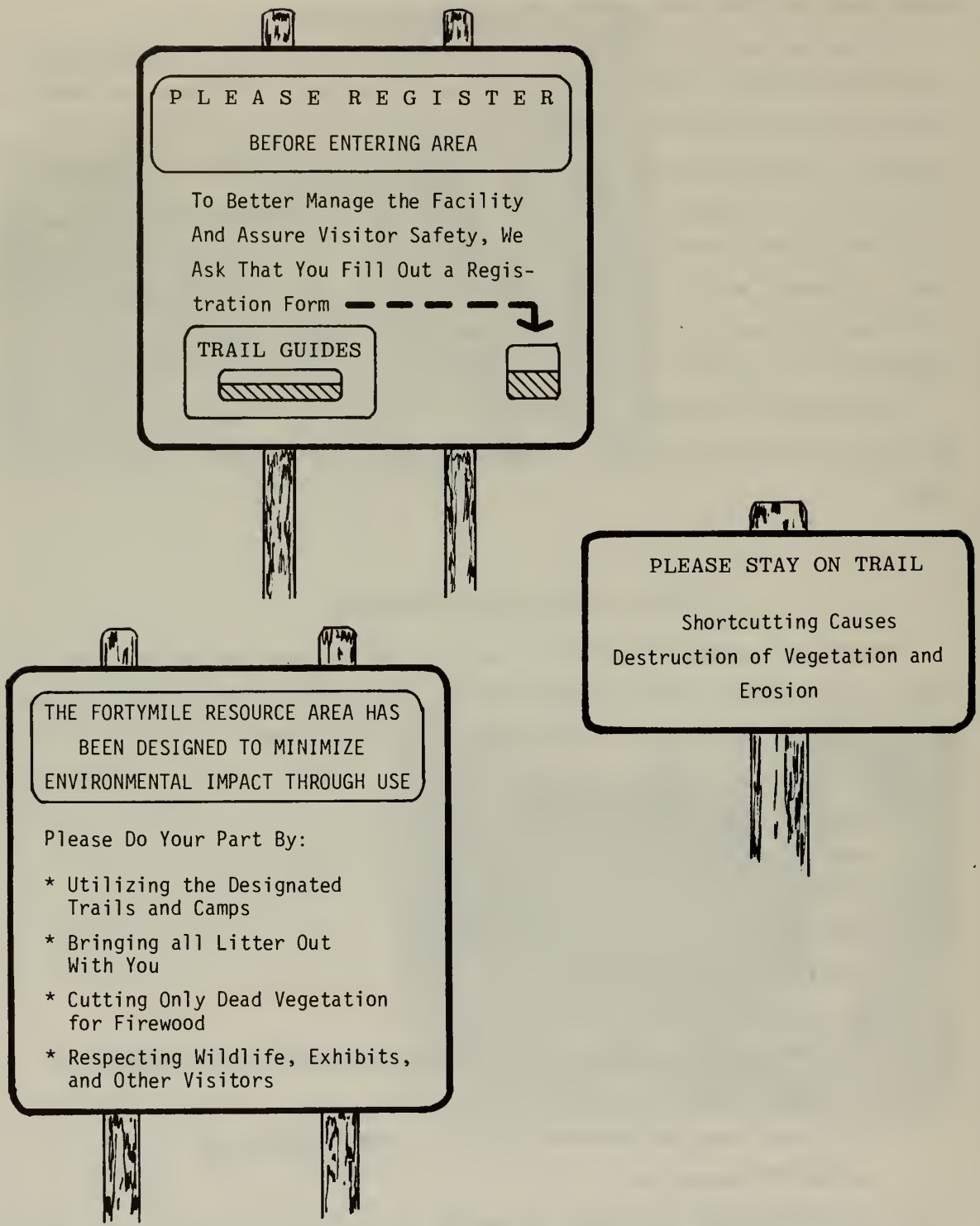


FIGURE 16. INTERPRETIVE MESSAGES FOR VISITOR MANAGEMENT

* The historical link of the Fortymile Area of Alaska to the Yukon Territory of Canada to the east
* The irreplaceability of the cultural artifacts
* The respect for other's property shown by the early miners
* While the forces of nature have changed the area slowly over time, the forces of man can be extremely destructive in a very short period of time
* The BLM wants each visitor to the Fortymile Area to thoroughly enjoy the resources of the area, and to share in the job of preserving and protecting these resources
* The artifacts you see and enjoy in the area are there because the previous visitor cared enough to leave them. If you do the same, another visitor can share the same pleasure you experienced

In addition, the historical messages should strive to characterize the early inhabitants of the area. Who were the miners and Indians? Where did they come from and how did they live? Why did they leave? This kind of information will give the visitor a much better insight to the people who made the area what it is today.

The interpretive message system should combine oral messages, written messages, diagrams, photographs, and sketches. There are numerous artifacts throughout the area which can be utilized in a variety of exhibits. As has been previously mentioned, it would be desirable to utilize taped segments of interviews with old-timers either recollecting a specific event or describing the history and workings of a particular piece of machinery such as the Jack Wade Dredge.

The following messages are intended to serve as examples of how to construct messages for various functions and features.

General Orientation

This type of message should be incorporated in the information system prepared for the principal contact station. The message theme should consist of:

Vehicular access into the interior of the area is limited to the Taylor Highway which runs north from Tetlin Junction to the Yukon River at the historic town of Eagle. Prior to construction of the highway in 1952, access to Eagle and other towns along the road was by air or winter trail.

BLM has provided many recreational opportunities for you to enjoy. These include campgrounds, historical exhibits, wayside interpretive stops, and recreational developments along the river.

As you prepare to enjoy the Fortymile Area and share with us this truly unique experience, we ask you to join with us to care for these resources so that others like yourself may enjoy a similar opportunity. Like the gold miners whose cabins you will see throughout the area, we believe that we should leave each place we visit exactly as we found it. That way it will be ready for the next visitor. With your help we can keep the Fortymile Country the way you see it as you approach the area.

The Bureau of Land Management on behalf of the Secretary of Interior and the State of Alaska is pleased to welcome you to the Fortymile Resource Area of Alaska. As you enter the area you will observe a visitor information station on the right hand side of the road. We encourage you to stop at the station, view the many interesting exhibits and pick up tourist information and brochures telling about the various outdoor recreation opportunities and visitor facilities within the area. Have an enjoyable and safe visit in this land of the midnight sun.

Specific Element -- Historical and Cultural

The following message is an example of text which could be used to interpret a major historic site such as the Wade Dredge.

The massive hulk before you is the remains of what has come to be known as the Jack Wade dredge. This enormous machine, one of the smallest dredges used in the Fortymile during the peak of the gold mining activity, stands as a monument to the ambition and ingenuity of the early miners working on the river.

The Wade dredge, originally known as the Mulvain dredge, is a bucket-line dredge. It was initially powered by a wood burning steam engine and later, prior to going out of the service, was converted to diesel power.

The dredge was built at the head of the creek. As the large buckets worked the load ahead of the dredge, they dug a small pool on which the dredge floated. As the buckets came up the boom line, they deposited their load in a large sluice box located in the center of the dredge. The mine tailings, that material which did not sift through the sluice box, would be deposited out the rear of the dredge by use of a short conveyor-type belt line.

An average run lasted ten twenty-four hour days and usually brought in about $20,000 to $30,000. At the end of ten days, the

sluice boxes would be cleaned and the operation would begin over again. A take of $1,000 a day was considered profitable. Total gold production from this dredge was estimated to be in excess of $2,000,000.

The dredge required three men to operate (winchman, oiler, and fireman), however, thirty men were kept busy cutting wood for the boiler. Ten to twelve cords of wood per day were needed to keep the boiler operating. The season usually lasted from June through October, so close to 1500 cords of wood were used each season. The three dredge operators had higher wages than the wood cutters. They were paid about $7.00 per day while the wood cutters received close to $6.00 per cord of wood.

A camp was set up for those men working on the dredge and cutting wood who did not have cabins in the area. Most of the wood cutters lived in the area because they would also cut wood during the winter. The operators usually left during the winter, however, some would stay and work as wood cutters. The camp was set up where the dredge first started digging, but there are only one or two cabins left in that area now. The blacksmith shop and sawmill were located at the lower camp, then known as Lassen Camp after an old-timer named Andy Lassen.

The Mulvain dredge first came to the Fortymile on the Walker Fork in the early 1900s. It was moved from Walker Fork to the Fortymile River just below Franklin Creek around 1910 and worked there about four years before it was closed in 1914. To make the move to Wade Creek, the dredge was disassembled and moved by horses during the winter. While it was working below Franklin Creek, it was making a good profit; however, once it passed the mouth of Franklin Creek and began upstream on the Fortymile River, it did not uncover much pay. Franklin Creek was feeding the gold into the Fortymile River and there wasn't much gold above the mouth of Franklin Creek. It became unprofitable to keep the dredge running, so it was shut down about 1914.

During the spring of 1935, North American Mining Company of Boston bought the dredge and moved it with horses and sleds from the Fortymile River to Jack Wade Creek. The hull was replaced with new timbers and a new bucketline was put on. The buckets were transported by rail from Cordova to Chitina on the Cooper River and Northwestern Railroad. They were taken by truck from Chitina to Christochina where they were flown to Lassen Field (presently Walker Fork Campground) near Jack Wade. A Travelair plane was used but could only carry one bucket at a time since each bucket weighed over 700 pounds. North American Mines operated the dredge until 1938 when they sold it to the Yukon Placer Company. Chuck Herbert, Harold Smith, Leonard Stampe, Earl Ellingen, and Fred Parker were all partners in the Yukon Placer Company. Chuck Herbert, presently the Commissioner of Natural Resources, was in charge of the dredge and called his portion of the company the Jack Wade Dredge Company. Leonard Stampe operated the bulldozers above the dredge near Jack Wade.

In 1949 the steam engine was replaced by a diesel engine. The large mass of scrap metal parts along the road is where the conversion was made. In 1941 the digging ladder broke and was repaired, but it broke again. Problems of maintenance resulted in a decision to shut the dredge down in 1941. In 1942 the U. S. government forced the

Yukon Placer Company to lease their bulldozers to the government because of the war. This forced the company to terminate most of its work.

After the dredge finally shut down at this, its final resting place, miners working in the area raided the dredge for steel which could be forged into parts for bulldozers and other mining equipment. Some of the mine tailings around the front of the dredge were piled there by a miner who was bulldozing material in the immediate area.

There are many rusting parts of the dredge scattered throughout the area. This hulk serves as a constant reminder of the work, hardship, and ingenuity of the men who helped open the frontier of Alaska during the colorful gold-mining era.

An interesting interpretive display and recorded message is available inside the dredge. You are invited to tour the structure and examine the exhibits. As you marvel at the structure and enjoy the presentation, remember that as you leave the site is as those who come after you will discover it. Your care and respect is appreciated.

Behavioral (Rules and Regulations)

As was previously discussed, the success of the non-contact visitor management program is dependent upon the capability of the combined message and graphic system to instill in the visitor a sense of appreciation and propriety. The use of categorical prohibitions has not been a successful approach to the problem of behavioral modification.

The approach developed in the sample message could be tied into any type of interpretive message. It involves an explanation coupled with an appeal to the maturity and sense of responsibility we believe is present in the majority of people.

The area is unique and extremely sensitive to human impact. Impregnations in the soft tundra remain for centuries. Why? Because the processes of nature work so slowly in this country. The roads, trails, and paths throughout the area were carefully selected to bring you into contact with the land while causing the least impact on the sensitive tundra. As you look around you there are no footprints or other indications of man's presence. This should give you a feeling of adventure to know you are seeing country that has never seen the foot of man. Don't be the first to spoil this untouched country. If you stay on the path provided for your use, you can help insure that the next visitor will enjoy the same feeling you have just experienced.

Stay on the path
Take only pictures
Leave only footprints

An example message for such an area, developed by the U. S. Forest Service, is shown in Figure 17.

Another approach is illustrated by the following example:

History tells us that the early gold miners who worked in the area showed a great deal of consideration for the rights and property of their fellow miners. Often they would travel long distances, stopping at vacant cabins to rest. Locked doors were foreign to the eighty-niner miners. If you visited another miner's cabin, you always replaced the provisions you used, tidied up the place, and cut more wood before moving on.

This same spirit prevails in the Fortymile today. Many of the cabins and mining sites you will discover in the area are as they were when the last miner or trapper left. Of course, the forces of nature have weathered these hardy structures to some degree, however, there has been little malicious destruction of these irreplaceable objects.

The furniture, tools, dishes, and other articles found in the cabins have been left there so you can appreciate more completely the way these hardy pioneers lived and worked. These articles are part of the irreplaceable heritage of the Fortymile. The Bureau of Land Management encourages you to visit these sites and share in this rich and colorful history. Look, touch, enjoy, replace, and thereby assure that others may have the same experience you have shared.

Still another approach might be:

The resources of the Fortymile are vast and cover an expanse of territory. The country is free of litter and defacement because the last visitor to the site took the effort to be sure the site was as he found it. Someone else cared for the land. We hope you will also care. We need your help to do the job of housekeeping in the Fortymile area. Please clean up your picnic or campsite, place your trash in the appropriate receptable, or better--carry it out like the early miners did. Help us save our precious tax dollars from being spent to clean up trash and litter.

Fires in Alaska result in the blackening of thousands of acres of forest land every year. Once burned, these areas are no longer scenic, no longer provide homes for wildlife or valuable watershed. It costs millions to put out a forest fire. Your care with the use of fire can help insure that this country will remain fresh and green for others to enjoy and appreciate.

Natural Resources and Processes

An example of a text for a natural processes message was included in the discussion of interpretive techniques. Figure 18 shows a device

FIGURE 17. SAMPLE NATURAL RESOURCE INTERPRETATION SIGN

FIGURE 18. U.S.D.A. FOREST SERVICE SNOW MANAGEMENT SIGN, INDEPENDENCE PASS, COLORADO

utilized by the Forest Service as part of its interpretive plan for the snow management program for the San Isabel National Forest in Colorado.

An example of a natural process would be the interpretation of the forest recovery following the Chicken fire.

CHICKEN BURN

A Fire Killed Hillside

The bleak, desolate area before you was once green and beautiful like most of the area in the Fortymile Country. What happened in the summer of 1966 is why this once beautiful forest is black and ugly.

In Alaska, 1966 was a very dry summer. Thunderstorms with heavy lightning was frequent. During a severe thunderstorm on July 23, a bolt of lightning struck the tender vegetation. At 3:00 pm during the storm, a fire was reported in the Dennison Fork Watershed about twenty miles south of Chicken. Within two hours the fire had reached over one hundred acres. Fifteen smoke jumpers were dispatched from Fairbanks to battle the blaze. The jumpers were unable to contain the roaring inferno. By the next day, the fire had grown in size to an area approximately one mile long by one-half mile wide.

Heavy winds in the dry conditions pushed the fire. By July 29, it had brown to over 40,000 acres and was virtually out of control. The fire crossed the Taylor Highway, where you are standing, on August 5. By August 9, it had burned over 150,000 acres. Rain brought some relief from August 9 through August 17.

On August 17, heavy dry winds caused the sleeping fire to break out again. The fire spread rapidly towards the Walker Fork and south of Chicken. Most August weather appeared during this latter stage of the fire, and by August 23 the main fire and many smaller blazes were brought under control. Heavy rains and snow in early September kept the fire down for good. On September 13, the fire was declared out.

During the forty-four day period, the Chicken fire burned an area of 250,000 acres. At one time, six hundred men and a massive amount of equipment worked on the fire. Over four hundred miles of fire trails, many of which are visible from the Taylor Highway, were built.

The Chicken fire serves as an example of the magnitude of effort required to manage the complex natural resources of the Alaska interior. In spite of the advances in fire prediction and fire suppression technology, the combined factors of hot, dry summer, dry fuel, storms, and heavy winds resulted in this massive holocaust.

Today, the area is slowly recovering. Burnt organic soil is beginning to give way to seedlings of white and black spruce, birch, cottonwood, and willow. The short Alaska growing season, the limited rainfall and the low level of soil nutrient, and the severe cold temperatures during the winter months will make this a slow process.

As you observe this massive catastrophe, keep in mind the careless use of fire by man. The complex taiga ecosystem responds very slowly to change. It will take many years for the natural vegetation to return to the site. In the mean time, scenic, watershed, and wildlife values

are affected. Please use care with matches and campfires while you are visiting the Fortymile country. Be sure you leave the forest fresh and green, not black and ugly like this Chicken burn.

Scenic Vista

A majority of the interpretive stations along the Taylor Highway will involve descriptions of landscape panoramas. In many instances this will include vistas with one or more predominate features. The basic device for this type of message is the diorama which profiles the vista and describes the predominating feature.

From this point, you are looking southwest over the Tanana Valley. The snow capped peaks in the distance are part of the vast Alaska mountain range. The gentle peaks in the foreground are within the Fortymile River basin.

On a clear day, several major peaks in the Alaska range are visible. The diorama will aid you in orienting yourself to the distant peaks. These are identified from left to right.

An example of the appropriate device for this type of message is shown in Figure 19.

Sites of Specific Events

There are several sites along the Taylor Highway where specific events associated with the history of the Fortymile occurred. An example of such a site is the Chicken Townsite. An interpretive diorama, such as shown in Figure 20, could be placed at turnouts on each side of the Taylor Highway. An ideal location for a turnoff would be a place where the town is first visible.

CHICKEN TOWNSITE

The town of Chicken was one of the major hubs of gold mining and commercial activity within the Fortymile Basin. The first record of activity on the site was the construction of a single cabin in 1891. In 1896 Bob Mathieson discovered a major prospect on upper Chicken Creek. This was about twenty miles downstream from the site of a major gold discovery in 1887 in Franklin Gulch.

Chicken grew from one cabin to a site of some twenty buildings, a dredge, airstrip, and cemetery. The miners cabins were spread out along the creek at the site of their diggings. In town the road

FIGURE 19. SCENIC VISTA INTERPRETATION

FIGURE 20. INTERPRETIVE DIORAMA

houses, general store, and taverns were clustered on the higher ground.

The town prospered during the late 1800s through the middle fifties, with a few "ups and downs" as gold mining towns go. Miners came and went as the gold fever spread throughout the basin.

There were no roads to Chicken until 1949. Goods were freighted in over winder trails. The first Post Office was established in 1903, providing regular mail delivery by horse and dog sled from Eagle every ten days. Following construction of the Chicken Airstrip, mail service was initiated in 1939 and continues today.

The focal point of Chicken was the Van Hook roadhouse which was constructed in 1906 by Harvey Van Hook. This was formerly known as the Chicken Creek Hotel. Activity was bustling during the early 1900s. The population had grown to four hundred people by 1906. School was taught in Chicken during the 1920s and again in the late 1940s.

In 1949 the Taylor Highway was completed from the Alcan Highway at Tetlin Junction to Chicken providing the first road connection with the major highway across Alaska.

Gold mining dropped off during the following World War II. In 1953 the Fairbanks Exploration Company began buying up most of the claims around Chicken, including the Chicken Townsite. In 1959 the large "Pedro" dredge now resting in Chicken Creek was moved here from Fairbanks and operated until 1967. A caretaker now lives by the dredge.

Chicken is typical of the mining communities which sprang to life in the Fortymile during the peak of gold fever activity. People have resided continuously in Chicken for eighty years. A Post Office has operated here for seventy-two years. The buildings are representative of the architecture and design methods used throughout Alaska and Canada during the peak of the gold rush.

Cultural Activities

Written on an illustrated board:

Mining in the Fortymile Area was accomplished by a variety of methods ranging from the lone miner with shovel and gold pan to the use of massive caterpillar tractors, hydraulic washing, and bucketline dredges. The large piles of mine tailings which are found on many reaches and tributaries of the Fortymile serve as a lasting reminder of the magnitude of environmental impact which resulted from these early activities.

Rocker Box

This process involves stipping off the ground by sluicing. A cut sufficient for two boxes is dug and a bedrock drain several feet in length is constructed. Pay gravels are shoveled into the boxes. Water is washed over the boxes, washing the heavier gold to the bottom. The waste material is removed and the residual material carefully panned for gold.

Drift Hole Mining

This was one of the most common processes used in the Fortymile basin. The process includes the sinking of a shaft to bedrock a distance of from twenty to forty feet. The shaft is then timbered. The ground is opened by drifts from which crosscuts are driven. The surface layers of auriferous gravels are then extracted and hoisted to the surface where the gold is recovered by ordinary sluicing. Thawing the ground with steam points was introduced in recent years to speed up the process of opening the sink holes.

The preparation of interpretive messages is a highly specialized form of communication. In the absence of the ranger or naturalist, the message must present relevant information in such a way as to answer the kinds of questions an average curious visitor would raise. Messages are initially general in nature, becoming more specific as the object decreases in magnitude and complexity. For example, the message chain begins by talking about the Chicken townsite. It continues to the town itself, to individual buildings, a building and its contents, to the very minute details of individual life during the period of occupancy.

Considerable time must be devoted to the preparation and testing of interpretive messages. More than likely the message will go through several textural revisions prior to arriving at the final version. The message formats should vary. Short and long texts should be interspersed. Some should be fairly detailed explanations. The grammatical structure, layout, and graphic content should be designed to yield a more personal approach and depart from any impression of an overly mechanistic and highly bureaucratic regime.

INTERPRETIVE GUIDELINES

INTERPRETIVE GUIDELINES

Highway Corridors of the Fortymile Resource Area

This section deals with the visitor contact and interpretation for the Alaskan Highway, the Taylor Highway, and those northern portions of the Glenn and Richardson Highways within the Fortymile Resource Area. The plan is divided into three complementary components. These are:

1. A general interpretive theme for the highway network within the Resource Area
2. A program for initial visitor contact and orientation to the principal resources, attractions, recreation opportunities, and facilities within the Resource Area
3. Mapped locations of suggested points of interest which should receive specific interpretive treatment

Summary of Characteristics

Road access into the interior of the Resource Area, which includes the Fortymile River, is provided by the east-west Alaskan Highway, the Taylor Highway, and the Glenn Highway running south from Tok. Travel on this network will be the principal point of contact for the majority of tourists passing through east central Alaska. For those traveling by commercial or tourist bus, particularly the older travelers with limited mobility, those features of the Area which can be viewed and experienced directly from the travel corridor will be of considerable importance.

Scenic vistas along the eastern end of the Alaskan Highway portion of the system are limited to a few sweeping panoramas primarily seen by the westward traveler. Traveling west of Tok the highway follows the fairly flat, lower terrain of the Tanana River valley which restricts views within a lineal vegetative corridor such as shown in Figure 21. The principal historical theme of this highway is that of

FIGURE 21. ALASKAN HIGHWAY CORRIDOR VIEWS

initial access to the interior of Alaska for military purposes. The highway is a major commercial linkage with Canada and the lower forty-eight states and thus receives a heavy volume of truck traffic. There are several small parks and scenic turnouts along the highway which provide glimpses of the Tanana lowlands in the Resource Area. There are a few spectacular vistas from higher viewpoints along the route. The fuel pipeline and several excavation scars are often clearly visible from the highway as illustrated in Figure 22. Mitigation of these impacts and the prevention of future encroachments on the visual integrity of the highway should be incorporated into the corridor visual management policies. Fortunately, there are few commercial signs or crass commercial developments within the corridor. Hopefully the future development of the recreation resources of the area will not result in local pressure for the typical jungle of signs and blinking lights which have sprung up adjacent to many of our park and recreation areas throughout the nation.

The general theme suggested for the Alaskan Highway is one of orientation and initial contact with the historical, cultural, and natural resources of the Resource Area.

The Glenn Highway traverses the Area for only a short distance. The visitor traveling from the south has passed through a considerable amoung of very scenic country enroute to the Tok Junction. Upon entering the Resouce Area, the elevation begins to drop so that within a few miles of the Little Tok River the highway vista becomes enclosed in a corridor type landscape which results from the relatively flat terrain of the Tanana lowlands. The principal themes for the Glenn Highway, traveling in either direction, are those of topography, vegetation, geology, and resultant visual transition from mountainous terrain to river valley. Figure 22 shows the Glenn Highway views.

Recreation Values

The recreation and tourism values of the Fortymile Resource Area are derived from both natural and environmental features and historic or cultural resources. From a State-wide perspective, the

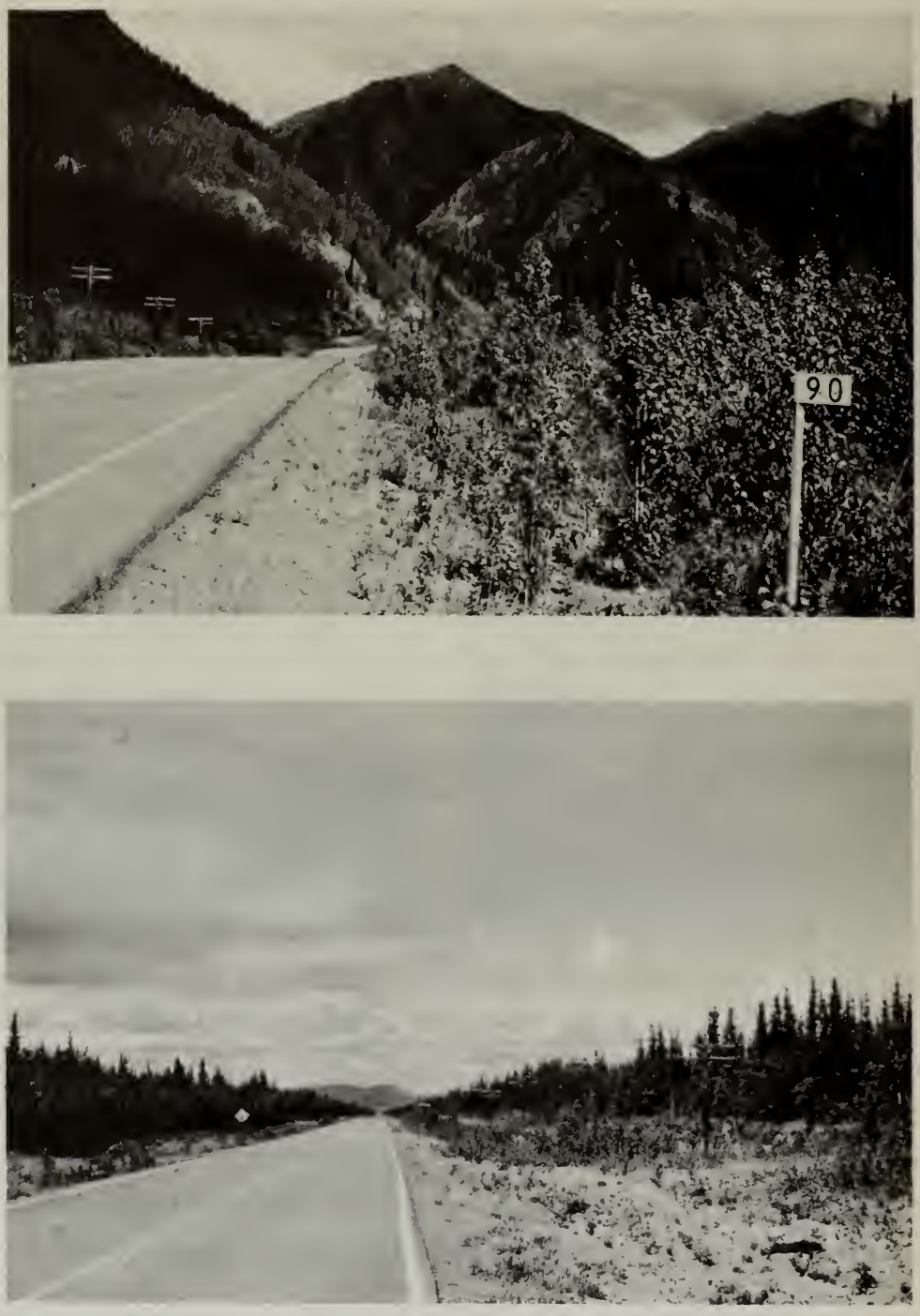


FIGURE 22. GLENN HIGHWAY CORRIDOR VIEWS

historic-cultural features of the Fortymile Resource Area are probably more distinctively unique than the natural features. Some of the recreation opportunities available in the area do relate specifically to present natural features--geologic and biologic. For the most part, similar opportunities can be found elsewhere in the state and often in more abundant or spectacular forms than those found in the Fortymile Resource Area. There are wilder rivers, more magnificent forests, less disturbed wildlife populations, etc., elsewhere. However, the imprint of past human activity in the area has resulted in the occurrence of unique historic resources and related recreation opportunities.

Importance of Access via Highway

Resources of interest to potential users are of minimal recreation-tourism value if they are not accessible to the general public. Like other portions of the state, access by small aircraft, river boat, and trail is available to the Fortymile. However, easy access by highway is not universally common to all areas of potential interest to the recreationist-tourist throughout the State. Consequently, the natural resources of this area have a greater than average potential for tourism, even greater than some of those resources in other portions of the state which may be physically more impressive but far less accessible. In this context, that portion of the Fortymile Resource Area included in the study area of this investigation has uniquely high potential due to its accessibility by individually operated motor vehicles. Figure 23 shows the principal points of access to the Fortymile Resource Area.

Most travelers entering Alaska from Canada along the Alaskan Highway pass through the Fortymile Resource Area headed for one of the major cities to the west. They come with two primary reference points in mind: the Alaska-Canada border crossing (the resumption of paved highway); and the termination of their trip--Anchorage, Fairbanks, or wherever. If reaching their destination requires turning off the Alaska Highway, the general location of the proper highway junction is

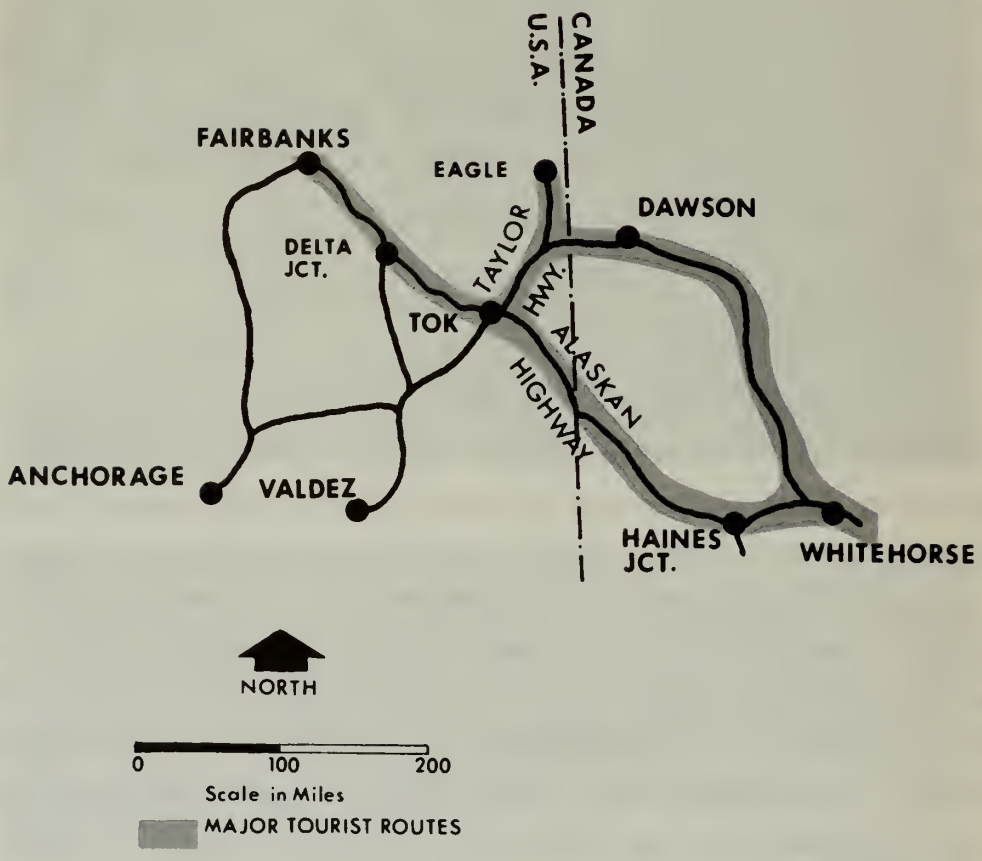


FIGURE 23. HIGHWAY ACCESS TO THE FORTYMILE RESOURCE AREA

usually also in mind.

Frequently, Tok is a convenient overnight stop for travelers having passed through customs and having arrived at the first major paved highway junction with the road south towards Valdez and Anchorage. This geography makes Tok a major rest stop for commercial passenger bus traffic as well as for personally driven, private vehicles.

Many highway travelers schedule an alternative route either into or out of Alaska via the Taylor Highway rather than travel the same Alaskan Highway route both entering and departing the state. This unpaved roadway is only open to traffic seasonally. As shown in Figure 24, the Taylor Highway joins the Alaskan Highway at Tetlin Junction, 12.5 miles east of Tok, then continues northward 95.5 miles to the intersection of two alternatives--one continuing northward 65 miles to dead end at Eagle, Alaska, on the south bank of the Yukon River; the other turning eastward and crossing the Alaska-Canada border in 15 miles and continuing on to Dawson City, Yukon Territory, then looping southward to rejoin the Canadian section of the Alaskan Highway.

Visitor Awareness and Attitudes

The conduct of formally structured visitor attitude surveys lay far outside the personnel field time constraints and mission of this study. However, discussions with both residents and visitors during field reconnaissance by researchers yielded several insights into general visitor attitudes.

A large number of visitors to Alaska who enter by highway have apparently never come into contact with the Bureau of Land Management in their previous travels. In addition, it is also apparent that many visitors to Alaska have not had access to any Fortymile Resource Area information during their trip planning. Even visitors who know about the Klondike gold rush and Dawson City within the Yukon Territory, Canada, have frequently not heard of the Fortymile Area and do not appreciate the close association between the natural features and history of the Fortymile and the Klondike development.

A visitor who intentionally plans a trip to visit Dawson City can

unknowingly drive through an area of closely related historic and geologic interest in Alaska without ever realizing that he has passed it by. Many visitors learn of the tourist-recreational resources of the Fortymile during a rest stop in Tok. For many, however, this information comes too late to revise their travel arrangements to permit an extended visit.

The recreation-tourism potentials of an area having resources of sufficient interest and easy accessibility may remain relatively underdeveloped if potential users are unaware of those resources and/or their accessibility. This situation seems to exist for the Fortymile Resource Area at present, but it is changing.

This change is a consequence of several factors. The generally increasing population of the state is one factor generating intrastate recreation interest in the area, particularly accelerated by the extent to which this growth is composed of new residents from outside the state exploring the opportunities of their recently adopted environment. Generally increasing inter-state and Canadian tourist interest in Alaska is another factor. The active interest of these two groups of tourists in Alaskan recreational opportunity is gradually generating increased awareness of the Fortymile Resource Area's recreation potentials. This interest is increased by the degree to which State agencies and the Bureau of Land Management have begun publicizing these recreation potentials through their tourist information services and as a spinoff from Canadian promotion of recreation in the Yukon territory.

These present factors will continue to increase awareness of the Fortymile Resource Area's recreational potentials, but it seems reasonable to assume that other factors will accelerate the rate of this increasing awareness. Prospective designation of portions of the Fortymile River as a National Wild and Scenic River, or any other federal publicity for that matter, can be expected to increase tourist awareness. The stabilization and eventual restoration of historic structures at Fort Egbert and at Eagle can be expected to further increase awareness among recreationists attuned to historic sites. This will be reinforced as Canadian tourist promotion of historic sites

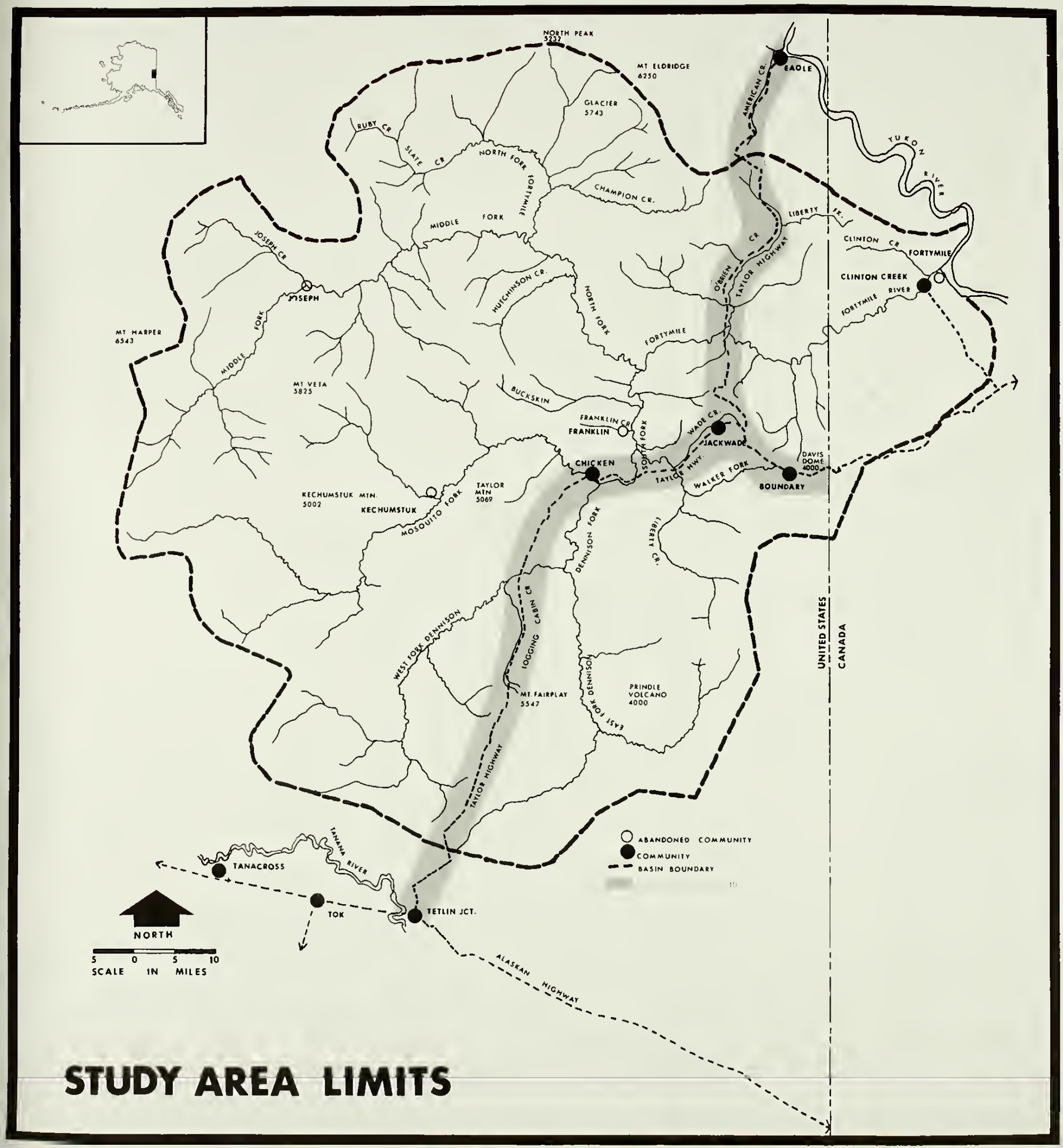


FIGURE 24. TAYLOR HIGHWAY CORRIDOR

in the Yukon Territory generates increased interest in places like Dawson City and the town of Fortymile which are of similar historic interest and are geographically nearby. In addition, tourist awareness can be expected to increase to whatever degree the managing agency--the Bureau of Land Management--becomes better known by the general public of the U. S. and more closely identified in the future with recreation facility management in other areas under its administration around the country.

Implications for Highway-Oriented Interpretive Facilities and Roadside Development

Identification with the Resource Area

It is of prime importance to the tourist development of the Fortymile Resource Area that those people who might be interested in the features of the area should become informed of their existence. Initially this needs to be accomplished by creating an increased awareness of the area among the visitors approaching the vicinity via highway. To this end, repeated references need to be made to the Fortymile River, the Fortymile Resource Area, and the Fortymile gold discoveries so that the term "Fortymile" becomes a part of the visitor's vocabulary and raises a question in the curious visitor's mind that will cause him to investigate the term further. Graphic references to the Fortymile will be important stimuli to this cognition.

A Fortymile Resource Area symbolic logo used on all roadside signs, all published materials, and any other graphic references to the Area will be instrumental in this reinforcement. Since many tourists are traveling through the Resource Area as a consequence of their interest in Yukon history, a logo design for the Fortymile which is distinctive but related to the logo presently used in the Canadian promotion of Yukon travel would emphasize the close association of the two areas. This coordination of symbolism should be discussed with the Yukon Tourist Information Bureau and developed with their consent. The effect would be to mutual benefit through reinforcement of the environmental and historic themes in both the Fortymile Area and the Yukon

Territory optimizing the dollar expenditures for tourism promotion on both sides of the border. This is particularly important since the same tourists who intentionally schedule their trip to include a visit to the Fortymile Resource Area and the restorations at the town of Eagle are likely to be those tourists who would be most interested in Dawson City and vice versa. Consequently, the logo for the Fortymile Resource Area needs to be very sensitively designed to show both the relationship to the events in the Yukon Territory as expressed in the Canadian logo and at the same time be recognizable as referring to a separate geographic and administrative area (see Figure 9, page 40).

Most tourist-recreationists who are oriented toward natural and hsitoric areas are familiar with the various State and Federal agencies responsible for managing such facilities and with the interpretive devices, particularly signs and other graphic displays, customarily provided in these areas. Unconsciously perhaps, visitors will be comparing what they see here with other areas they are familiar with. Since the Bureau of Land Management's involvement in recreation area management seems to be a recent activity, all roadside signs, maps, brochures, and other graphic products need to have the BLM logo prominently displayed along with the Fortymile Resource Area logo to increase user identification with the Agency. The visitor should come to identify with the "Fortymile" as a distinctive resource management area having strong recreational potentials and administered by a specific resource management agency, the BLM. This association should be as clear to a user of the Fortymile Resource Area as it is for the user of any other State or Federal park, forest, recreation area, or other visitor facility.

The Need for General Information About the Area and Establishment of Interpretive Themes

Initially, information promoting the potentials of the area should reinforce the present pattern of visitor activity. The distribution of brochures presently in use is a good beginning toward that objective. It is imperative that information about the Fortymile Resource Area which reaches the hands of a tourist who may alter his current travel

plans or may adjust future plans in order to visit the area should be accurate and up to date.

In addition to the present information provided by the BLM, the tourist may very well need information relative to overnight accommodations of various types--for tent camping, for vehicular campers and trailers, and for motel-type accommodations (roadhouses, etc.). Accurate information on the availability of automotive services and petroleum products, on groceries, and on dining facilities should be provided. The BLM should explicitly clarify the legal rights to the use of patented lands, mining claims on public lands, and general use of public lands in the information prepared for tourist recreationists.

As further promotional material is developed, its distribution will need to be broadened to include all of the commercial carriers passing through the Area (bus tours) and travel agencies, automotive clubs, etc., who distribute information to potential travelers during the trip planning stage of their vacation preparation. This will allow potential tourists to become familiar with the area and program a prolonged visit into their travel plans.

This effort at familiarization will rely primarily on written and pictorial communication. Several important points should be amplified about the character of the area. These should establish the overall interpretive theme for visitors to the Fortymile Resource Area:

* The Area is a vast land region, limited in terms of access, and consisting of highly perishable natural and historic features
* The Area offers uniquely interesting but limited recreational opportunities. The Area is not a multi-purpose recreation area. Certain activities are not compatible with the resource character of the area and are best pursued elsewhere
* Many of the principal resources of the Area are best enjoyed by viewing rather than direct physical contact
* Visitor safety presents severe limitations to extensive public use of the Area. Recreation activity is concentrated in certain accessible portions of the Area

In terms of the recreation potential of the State of Alaska as a

whole, these limiting factors are inconsequential. For a prospective visitor to the Fortymile Area, they are extremely significant. If such an information system can steer visitors with recreational demands which cannot be met within the Area to other locations of the State, many field-level user and management conflicts could be eliminated; some specific examples:

* Recreational quality of the river as a rafting and canoeing water body. The river is not exceptionally rough and challenging. Rather, most of the year it is generally peaceful and serene with short reaches of rapid water for interest
* Wildlife preservation is emphasized over game harvesting
* Recreational gold mining is limited to only a few areas which are not considered heavy lode sites
* The ecology of the muskeg limits the opportunities for extensive hiking through the area
* Due to the fragile ecology which heals slowly from abuse, no ATV's will be allowed within the Area for recreation purposes at times when the surface might be jeopardized

This list may not be exhaustive, but it illustrates the type of information which can help potential visitors in making the decision to plan an extended visit, pass through the Area quickly, or seek their recreational activity elsewhere in Alaska.

Accuracy of Information

Since much of the Fortymile Resource Area lies in remote countryside, it is imperative that the potential visitor should have accurate information on which to base his travel plans. At the present time, information on tourist and recreational opportunities in the Fortymile Area is disorganized, sketchy, incomplete, and contradictory.

Federal-State Coordination of Highway Information

One of the first situations that needs to be resolved between the Bureau of Land Management and the State of Alaska, Department of

Highways, is a common agreement on what is formally designated on maps and descriptive materials as the Taylor Highway. There needs to be a consensus reached on the description of its two major extensions, additions, or spurs to Eagle, Alaska, and to the Alaskan-Canadian border. The visitor seeking information on the Fortymile Area currently finds a contradiction in the various maps and publications available on the roads north and east of the junction to Eagle and towards the Canadian boundary and Dawson City. For the most part, local residents in the area interpret the "Taylor Highway" as running from the junction at the Alaskan Highway north to the town of Eagle, Alaska, on the Yukon River. BLM materials generally follow this pattern. However, data from the State of Alaska, Highway Department, indicates that the Taylor Highway extends from the junction at the Alaskan Highway north and then east towards the Canadian border and the city of Dawson, and that the road running from the Taylor Highway to the town of Eagle is an unnamed spur road off of the Taylor Highway. Federal publications vary between these two descriptions. Contradiction comes in the milepost-coordinated data on the Highway to which various facilities for the tourist visitor are referenced. In planning his trip according to the variety of information available, it is confusing to determine which visitor facilities are on which portion of the road. Whatever consensus is reached between the Bureau of Land Management and the State of Alaska, all future information distributed by both agencies should be consistent in their description of the Highway and any branches, spur roads, etc., off of it.

It is also important that the information available to tourists regarding visitor facilities and services along the Highway should be accurate and up to date. At present there are comments on various maps and advertising on various roadside signs which indicate that facilities are available in places where they no longer exist, and there are situations where entrepreneurs have placed flagrantly misleading information about services on roadside signs in order to further their own business interests. Display of misleading private roadside signs should be discouraged. All data supplied by the State Highway Department or the Bureau of Land Management should accurately reflect existing

circumstances. For the present at least, it will be best for all printed matter to be run in volumes which can be distributed to tourists in two years or less so that updates can be made at frequent periods of reprinting. Information on tourist facilities and services which is provided in areas such as the roadside visitor information areas described elsewhere in this report should be constructed in a format which will allow for revision as changes are made in facilities and services offered along the Highway. Some suggestions for solving the structural problems in interpretive devices to accommodate these changes have been included in the previous section of this report.

Mapping of Information for Public Distribution

There needs to be coordination between the permanent displays of information in the visitor information areas and any printed material which is distributed to the public so that the ideas and information presented in each is reinforced by the other. The information would seem to be realistically divided into several categories: (a) data on the Fortymile River, its tributaries, and the use of the river as a transportation artery through the resource area; (b) the highway facilities, separating those which lie along the Alaskan Highway and consist largely of the administrative offices and facilities of the Bureau of Land Management and those along the Taylor Highway, which is the major vehicular access corridor through the resource area; and (c) the unique historic renovations which are being made available at the Fort Egbert site in the town of Eagle. The foldout pocket map format currently being used by the Bureau of Land Management for tourist information is a very popular and very convenient format for this purpose. However, we suggest the time is at hand when separate brochures need to be provided for these three major categories of visitor interest within the Fortymile Resource Area. The current format which relates to the development in Eagle on one side of the map and to the Taylor Highway on the other will be too limited in space to do justice to either as development in Eagle continues and as the information available on the Highway becomes more detailed than that

currently listed. One or more additional brochures need to be added which relate to the river corridors. A single comprehensive brochure on river usage might be compiled which would have the convenience of collecting all of the river information in a single publication. However, considering the options available to the river traveler regarding trips down different tributaries and trips of different lengths possible by combining various tributaries, separate brochures for various reaches of the river system need to be developed in order to provide enough detail for the river traveler to constantly confirm his location in route and to adequately anticipate upcoming events on his journey.

All brochures regarding facilities, services, and points of interest in the Fortymile Area should include an introductory paragraph that acknowledges the other brochures which relate to aspects of the Resource Area not covered in that particular publication and which specifically mentions the titles and distribution points where the others are available. Figure 25 shows a sample collection of these information brochures.

Highway Corridor, Character Development, and Program

The Taylor Highway is distinguishable from other road access for several reasons. First, the highway is a lower standard road. Second, it serves as a commercial transportation linkage to connect the towns of Clinton Creek, Dawson, Chicken, and Eagle with the Alaskan Highway as well as a tourist connection via Boundary to Dawson City, Canada. Third, the road traverses a large area of the Fortymile River system. Consequently, it passes through some of the most scenic and historically important country within the Resource Area. Fourth, the road provides physical contact with the major recreation opportunities within the interior of the Fortymile area. This includes not only access for river raft and canoe floats, but camping, fishing, hunting, recreational gold mining, hiking, historical study, and cultural assimilation as well.

Although some heavy truck traffic uses the Highway, the road we

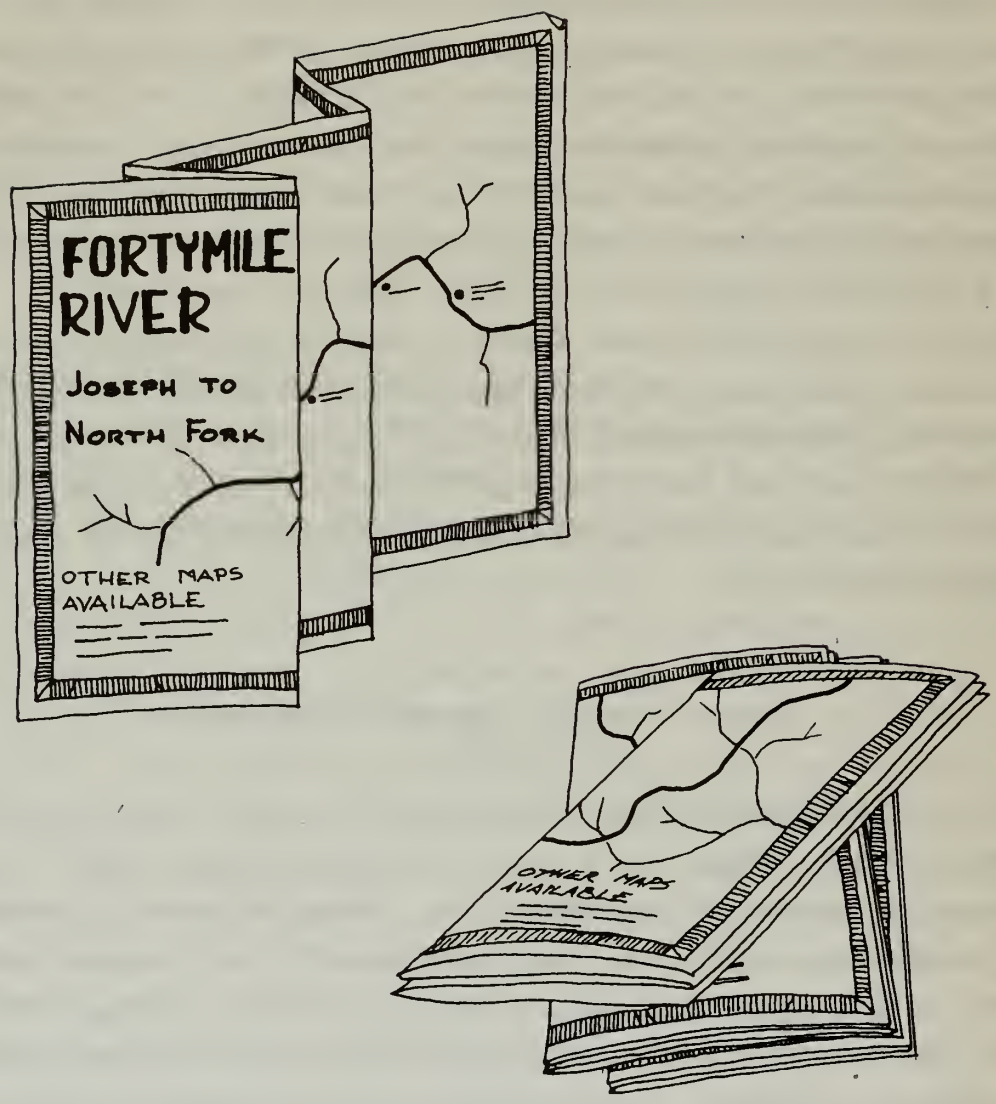


FIGURE 25. BROCHURES FOR VISITORS TO THE FORTYMILE RESOURCE AREA

believe should be categorized principally as a park road. The current interest in realigning the road to upgrade the design standards and accommodate more commercial traffic should be very carefully reassessed in terms of the impact of additional vehicular traffic on the aesthetic, cultural, and recreational values within the immediate environs of the highway corridor.

The environment within the interior of the Resource Area is much different in character than the Tanana lowlands. The Highway rises from Tetlin Junction and follows the high ridges above the south and north forks of the Fortymile River, around Mount Fairplay, dropping gradually into the Yukon Basin at Eagle. The traveler is exposed to continuous panoramas of the vast expanses of the Fortymile Basin, major stretches of some of the more scenic reaches of the river, drastic changes in vegetation, examples of the regional geology, and numerous examples at various scales of past gold mining and exploration activities. Selected examples of the visual, floral, geologic, and historical resources within this highway corridor are found in Figure 26. In short, the Taylor Highway offers a unique park experience in a park-like setting. The highway, as a travel experience, serves as a primary intensive recreational development within the Area and should be enjoyed without the numerous construction scars which blight the highway landscape and impair the visual integrity of many portions of the highway as well as river vistas. This park-like characterization will be utilized in the subsequent development of the suggested area management plan.

Clarification of the State of Alaska Highway Department Taylor Highway Improvement Work Program

The date currently available on the Taylor Highway reflects contradiction, or at least ambivalency, in the State of Alaska Highway Department's attitudes toward development programs for the Taylor Highway. The draft environmental impact statement for improvements on the Taylor Highway is an excellent case in point. Numerous references are made to the need to both improve the alignment of the highway as well as to improve the nature of the surface based on anticipated

FIGURE 26. TYPICAL TAYLOR HIGHWAY VIEWS

tourism-recreation demands for the Highway. These projections of the demands are largely subjective. Apparently, there is no organized information on tourist use over time along the Highway which can be objectively analyzed by statistical methods. This lack of data needs to be corrected as soon as possible. Standard traffic count techniques using existing equipment and analytical methods need to be initiated.

Assuming that this subjective evaluation of the increasing recreation use of the Taylor Highway for tourism purposes is valid, it seems inconsistent that the portion of the roadway leading to the town of Eagle has been excluded from proposed improvement. This omission is in keeping with the Department's definition of the Taylor Highway as excluding the road to Eagle, but totally dismisses the likelihood that precisely those tourists whose interests caused them to travel substantial distances off of the Alaskan Highway in order to visit Dawson City, Canada, are likely to be those tourists most interested in the historical features within the Fortymile Resource Area and particularly those historical reconstructions being developed at the town of Eagle. Improvement of the road to Eagle would seem to be far more in keeping with improvements justified by recreational and tourist interests since this portion of the highway access is generally narrower and more serpentine than other portions of the roadway. While there is little question that the Highway Department's proposed program for realignment, widening of roadbed, and resurfacing is important on the portions of the Highway presently proposed, if tourism really is the demand factor necessitating this improvement, it would certainly seem that it was even more important to make these improvements along the road to Eagle.

In addition, the proposed work program for the improvements along the Taylor Highway, both as described in the draft environmental impact statement and in the work program as described by telephone conversation by the researchers with the Fairbanks office of the State Highway Department during the summer of 1975, would seem to contradict those statements of urgent development required as a consequence of projected tourist recreation demand. The work programs outlined involve piecemeal improvements over the next five to seven years which do not total

a complete renovation of the road surface even in that time span. This slow-paced improvement hardly reflects the statements of urgency made in the environmental impact statements.

At the very earliest opportunity, high ranking officials of both the Bureau of Land Management and the State of Alaska Highway Department need to convene to discuss their individual estimates on the traffic demands for the future whether tourist-generated or otherwise. Also, a consensus of planned capital improvement programming needs to be derived relative to the realignment, widening, and resurfacing of the Highway including that portion of the road extending to the town of Eagle, whether or not this portion is officially designated as a part of the Taylor Highway by the Highway Department. Coordination of efforts within the Resource Area would seem to be possible only if a consensus is reached at the highest administrative levels and is then pursued vigorously at the levels of implementation responsibility. All parties involved in the development of facilities and structures within the resource area need to understand that sensitive protection of the historic and natural resources found in the area in conjunction with increasing visitation by tourist-recreationists will only be possible through a coordinated administrative effort and management program. The lack of authorized financing to maintain a high level of visitor management-oriented personnel accentuates the need for wise and coordinated development of self-guiding facilities which can be budgeted within existing programs and projects.

Character of Development Adjacent to the Taylor Highway

The initial construction and subsequent maintenance of the Taylor Highway appears to have been conducted as a very pragmatic response to the problem of access to the Top-of-the-World-Highway at the Canadian border and to the town of Eagle. The peculiar demands of the tourist-recreationists for access to uniquely scenic and historic sites and to the maintenance of a continuously attractive travel experience have been of marginal concern. It appears that maintenance budgets have been minimal as evidenced by the completely inadequate allocations for

the landscape renovation efforts required to maintain attractive visual areas following construction. This is most obviously evidenced by the general lack of concern for the appearance of gravel pit areas scattered along the entire highway right-of-way. Apparently, the approach has been to simply grab whatever gravel fill was needed from whatever spot was closest to the point of construction or repair. This was apparently most often done with no effort to try and locate the point of extraction where it would not be seen from the road or to camouflage or screen the entrance to an excavation area subsequent to its use. There does appear to have been some effort more recently to locate gravel extraction areas where they would not leave a scar in the landscape visible to a Highway traveler. But there has been no effort to regrade and/or revegetate the many past offenses. Figure 27 illustrates the consequences of this action and Figure 28 illustrates preferable treatment.

If, in fact, the Highway Department and the Bureau of Land Management truly believe that tourist-recreationist use will be a major demand factor on the road in the future, then efforts must be made to provide the kind of experience that such visitors will expect. This will mean all construction sites associated with the Highway development will need to be visually screened from the Highway and from interpretive areas developed adjacent to the Highway. This technology has been very much advanced recently in the construction development adjacent to the Alaskan Highway and particularly that associated with the Alaskan pipeline. This same technology needs to become part of the standard operating procedure for construction and maintenance along the Taylor Highway as well.

Efforts at the revegetation of construction scars seem to have been minimal at best in the past. Revegetation, of course, is very difficult in an area where the thin layers of top soil containing nutrients and organic matter--which provide a rooting medium for plants--have been stripped and not replaced after construction. The very short growing season of this region combines to inhibit the re-establishment of vegetation on a construction site. Again, technology as applied recently in conjunction with the Alaskan pipeline

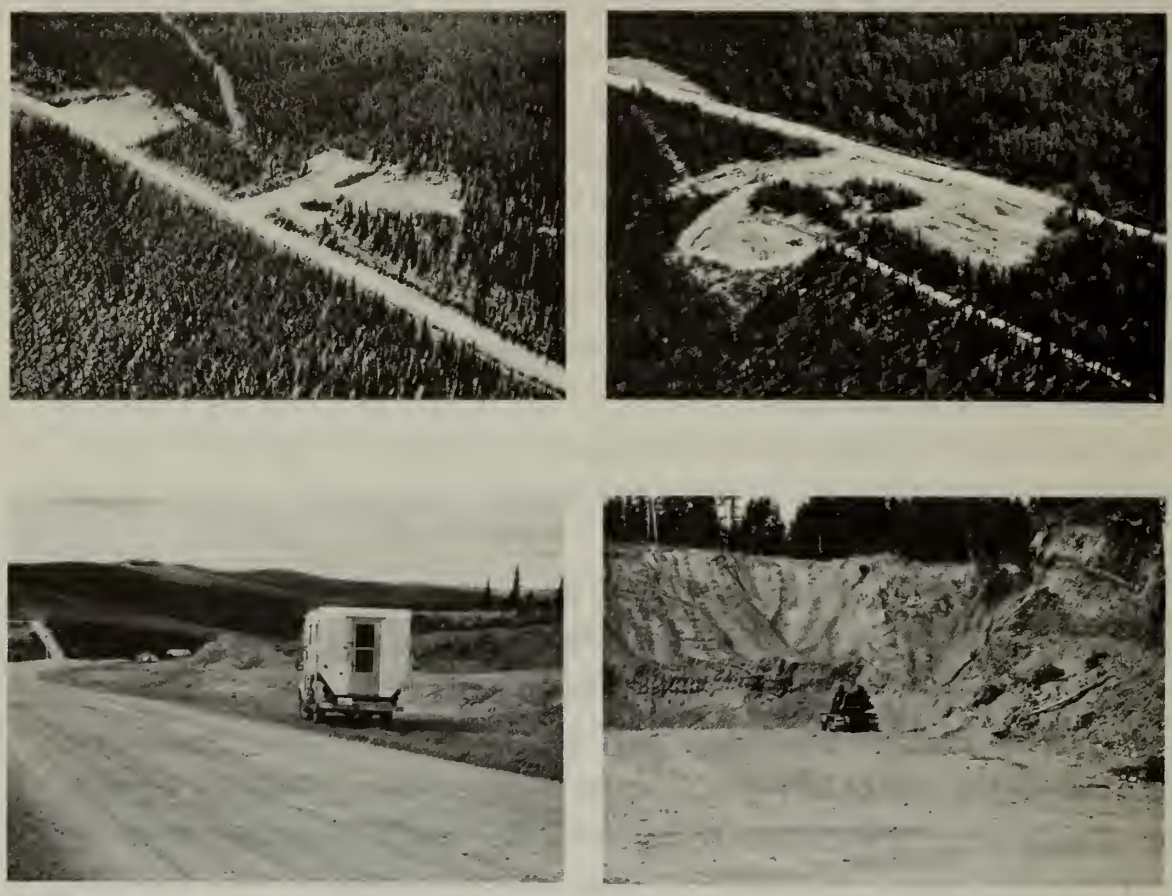


FIGURE 27. GRAVEL EXTRACTION

FIGURE 28. VEGETATIVELY-SCREENED GRAVEL PITS SET BACK FROM ROADSIDE VIEW

construction should become a part of the standard operating procedure following construction or maintenance on the Taylor Highway which will lead toward a more rapid revegetation of the exposed construction scars.

In telephone conversation with the Fairbanks office of the State Highway Department, the responsibility for the upkeep and maintenance of highway signs and markers was indicated as a responsibility of the local highway district in the area. It is quite apparent that, for budgetary or other reasons, the maintenance of even the most basic marker of this region--the mile post--has been neglected in the past. Many of these markers have been entirely removed; some appear to have been all but destroyed by hunters; and others, though standing, have not been maintained in response to normal weathering processes. As the Highway develops as a regional tourist attraction, better maintenance of facilities must be provided.

It is the practice in this region not to adjust mile posts to changes in length of the road due to modification and alignment subsequent to original construction. One of the stated reasons for this is the local population's use of these miles posts as residential address references with a resulting public displeasure at frequent changes in the numbering system. However, considering that there are many gaps in mileposting on the present Highway and considering that there may be substantial distance alterations as a function of the currently proposed alignment adjustments, it would seem most feasible in the near future to only replace occasional mileposts where there are several consecutive markers missing at the present. After the modifications to the Highway alignment and surface have been made, it would seem appropriate to recalibrate the entire length of Highway. It would be expected to be quite some time before distances would change substantially again following the proposed improvements. By the time of this reposting, it may have become national policy to indicate distances in kilometers rather than miles so that the posts would then become kilometer posts rather than mile posts and only one reposting would be required.

It is essential that all construction scars as a consequence of future alignment changes or road widening be minimized. This concern needs to become a part of the planning stage for any alignment and profile that is developed. This practice is particularly important in all areas where highway cuts are visible from the navigable portions of the Fortymile River or its tributaries. In these areas, it is important to do a detailed visual analysis of the future highway cut from both the Highway and from the water level. Our initial observations from the river indicate that there are likely places where the highway cut will be visible from the water surface. In these circumstances, it seems a wise general practice to minimize the amount of fill on the downhill side of the road surface so that maximum existing vegetation between highway and river can be preserved. The intersection of the upward view provided by the vegetation on the outside edge of the highway will visually reduce the amount of exposed surface due to cutting on the uphill side of the Highway. This is illustrated in the following photos and diagrams, Figures 29 and 30. This may require an excess of cut over the normal highway cross section in these areas. However, the material from this cutting can be used to meet fill requirements at other points along the Highway profile.

Rest Stops and Interpretive Areas

Even the improved highway, as presently proposed, will provide a fairly long drive over gravel roads and will continue to have numerous curves and bends that need to be negotiated at low speeds compared to the straighter paved highways that most of the recreation-tourists will be accustomed to. This driving speed contrast will be particularly pronounced for the traveler who wants to make the complete drive between the Tetlin Junction intersection of the Taylor Highway and the Alaskan Highway to Eagle in one day or between the Tetlin Junction Highway intersection and Dawson City in a single day. Observations made by the researchers indicate that there is a high percentage of automobile-drawn travel trailers negotiating the road and a large number of truck-mounted campers. It was observed that there was a high percentage of

FIGURE 29. EXPOSED SURFACE ON RIVER SLOPE BELOW ROAD

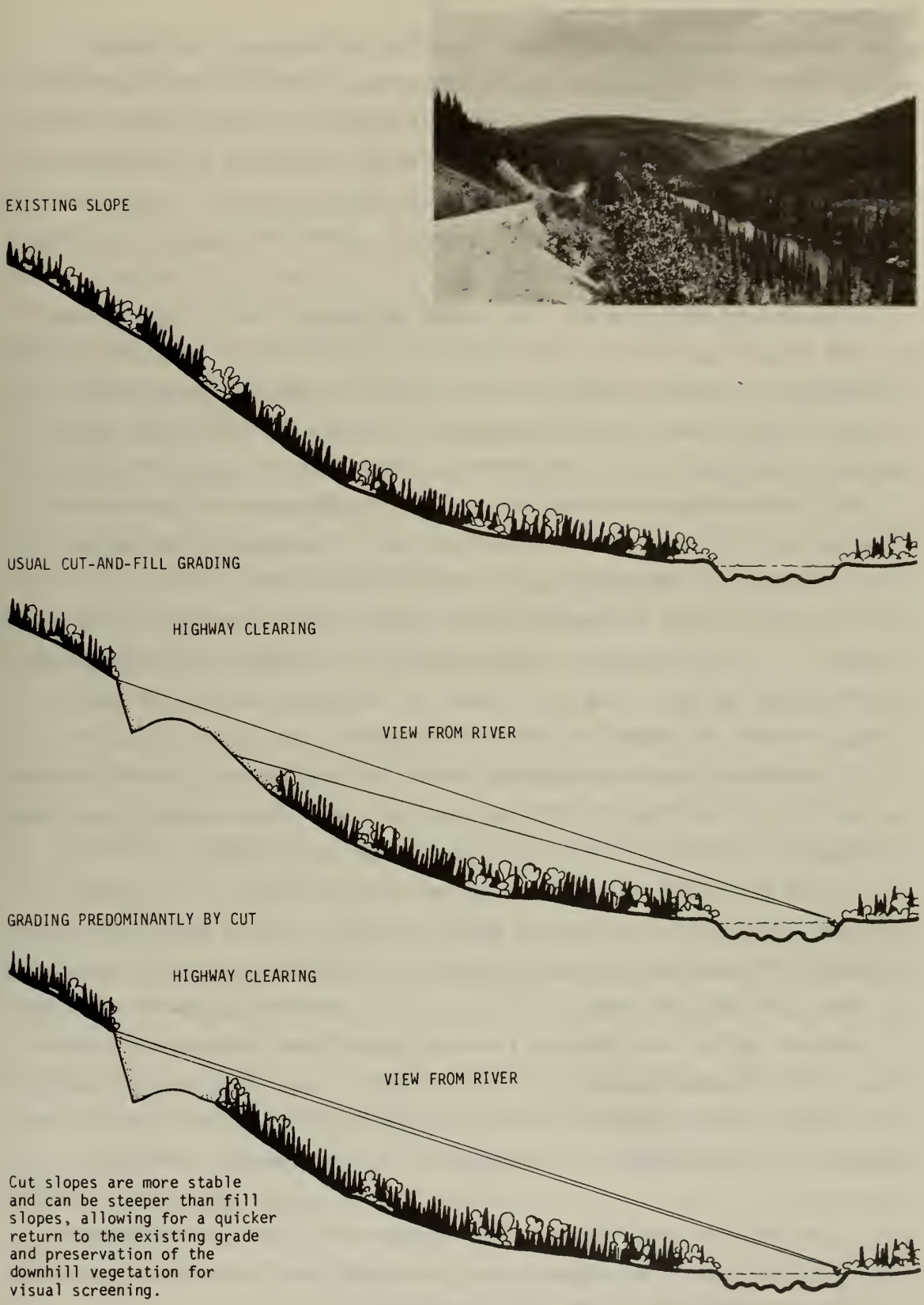


FIGURE 30. HIGHWAY IMPROVEMENTS WITH DOWNHILL VEGETATION PRESERVED

older drivers among the tourists traveling the Highway. It seems highly advisable to provide roadside turnouts for rest opportunities, at least as frequently as every thirty minutes along the highway route calculated at the posted speed limit. Where possible, it will obviously be advisable to locate these turnouts in conjunction with some point of historic, geologic, or other environmental point of interest along the Highway routing.

The demand for roadside rest stops is present being met wherever a tired driver can find a relatively level area that is accessible from the roadway. In many cases, the old gravel excavation sites serve this purpose. There are a limited number of roadside turnouts that have been provided specifically for this purpose. One of the consequences of this provision of roadside turnouts by happenstance is that undesirable conflicts in traffic occur and their frequency is irregular and, consequently, unpredictable by the tiring driver. Since there are a limited number of opportunities along certain stretches of the Highway, it is very common to discover that a traveler has crossed the road in order to park in a level area on the opposite side of the highway. As a principal of traffic management, these crossings of traffic movement from the opposite direction are generally undesirable. In addition, since the sites being used were not intentionally designed as roadside rest areas, the requirements for good highway visibility at the points of ingress and egress do not always prevail. It is not uncommon for a traveler to come around a corner in the road to find another vehicle either pulling into the line of traffic, cutting across the road, or stopped directly in the road pondering whether or not it is possible to get his vehicle to an adjacent level spot at the road side. With the development of roadside rest areas, the use of present sites which create hazards to traffic flow should be discouraged. The method of discouragement will depend on the individual sites, but should include such things as revegetation to screen these areas from view and create a physical limit to access as well. In some extreme cases, earth grading or other structural modifications may be necessary to create barriers to access from the Highway.

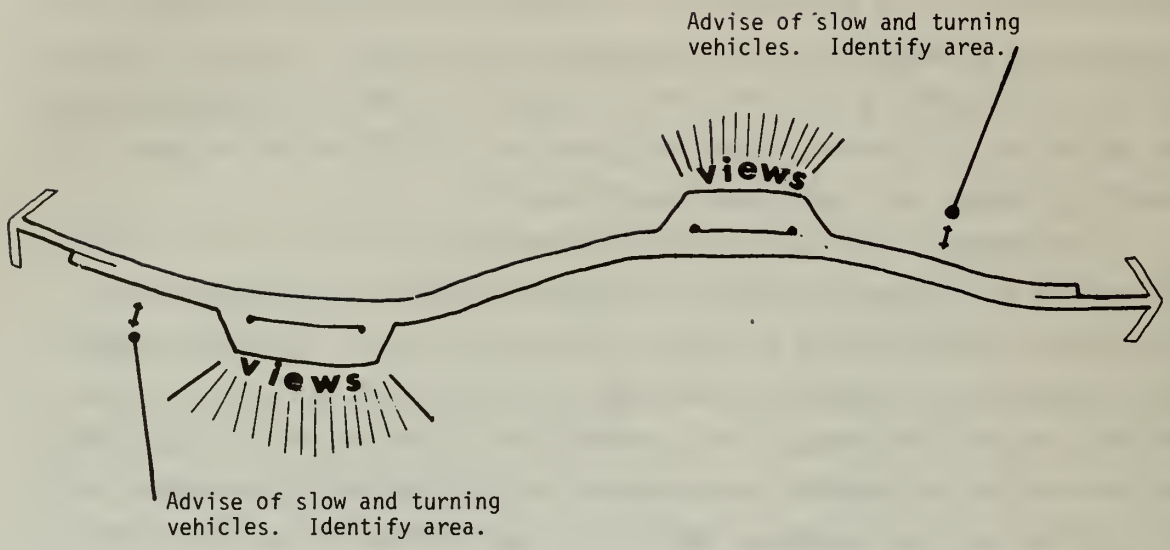
To minimize the urge to cross over a traffic lane, turnouts should be planned so that a driver comes to a rest area on his side of the Highway prior to passing one on the opposite side. Where this is not possible, travelers approaching a turnout from the opposite direction should be advised of the distance to a turnout on their side of the road. These distances should be kept minimal so that a tired driver approaching a rest area on the opposite side of the road will be appraised of a nearby opportunity on his side in which to turn off of the Highway, as illustrated in Figure 31.

Interpretive devices located in roadside rest areas should refer to points of interest upcoming on the same side of the road as the rest area on the side of visitors' continued travel. In other words, these areas should cater to the traffic flow on the same side of the Highway as the rest area. This probably will not be possible for the major tourist information areas where the more elaborate interpretive facilities will be located. It will be uneconomic to duplicate these major interpretive facilities on both sides of the Highway. In these circumstances, great care must be taken to create clear visual corridors to the entrances and exits of the area, with proper advanced warning to moving traffic that there may be entering and exiting vehicles turning across the driving lane from the other direction.

There is every reason to believe that a large number of the roadside rest areas and perhaps the larger information areas can be developed on the sites of previous sand and gravel excavation. This will provide an opportunity to regrade and revegetate many of these presently visually unattractive sites. It is obvious that any such construction program needs to be carefully coordinated with the continuing need for gravel excavation to maintain the highway surface. However, all of the currently needed gravel excavation sites should be constructed and managed in a fashion that will avoid visual intrusions on the travel experience.

Improved programs for roadside litter management need to be developed along the Taylor Highway. The relatively small number of litter barrels that are now provided exceed the present capacity for litter collection at a frequent enough interval to keep litter barrels

PREFERRED TURNOUT SEQUENCE



ALTERNATIVE TURNOUT SEQUENCE

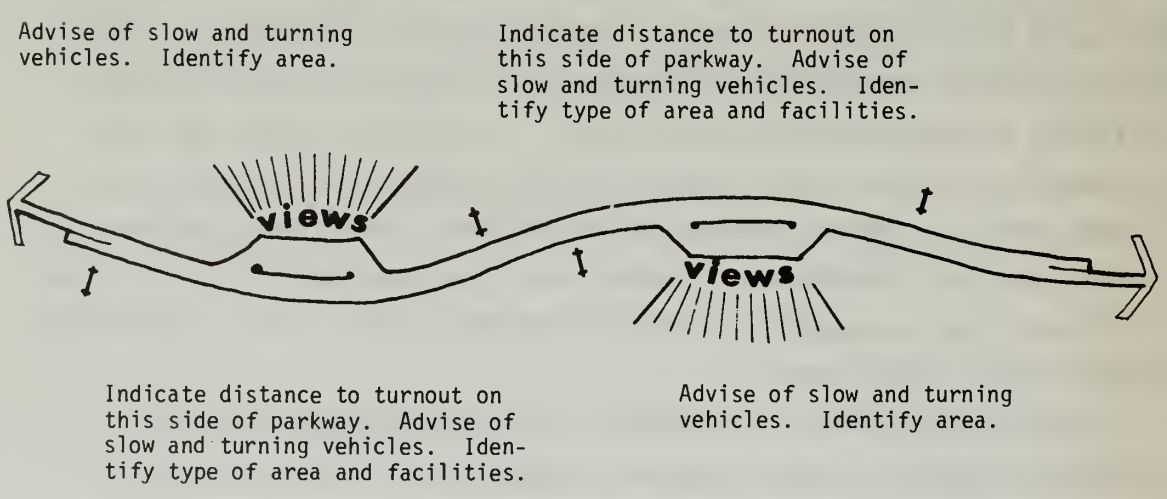


FIGURE 31. ROADSIDE TURNOUT SEQUENCING

empty and the sites free from litter. More frequent litter collection will be mandatory in keeping roadside turnouts attractive. In addition, many of the litter barrels provided at present are located directly in the middle of a relatively small turnout area. To whatever extent these areas are provided with attractive scenic views, the circumstances create a pile of overflowing litter directly in the center of what was intended to be a desirable panoramic vista. It would seem more appropriate to locate litter barrels at the far end of a roadside rest area so that any overflowing litter and the barrels themselves would be less obtrusive to the visitors' enjoyment of a scenic vista. Figure 32 illustrates preferable turnout development. It would certainly be appropriate in many of the larger roadside rest areas to provide an opportunity for the traveler to get out of his car, take a short walk, and, perhaps, be able to sit at a picnic table or other structure and enjoy a cup of coffee or a sandwich. Any such facilities should also be placed in a manner so that they will not intrude on other visitors' enjoyment of a scenic vista at the rest area.

Sequencing of Highway-Oriented Visitor Information Facilities

Visitor information facilities along the highway access to the Fortymile Resource Area need to serve several different purposes and, consequently, will be of several different characteristics. All access routes to the area should have a visitor welcome message in graphic form. In addition, each access route needs a basic visitor information area providing summary information on sites and activities of interest within the resource area. In addition to the access route locations, information facilities will need to be provided for the Taylor Highway route through the resource area and for the town of Eagle, Alaska. Several specialized messages for unique points of interest should be provided frequently along the highways, particularly the Taylor Highway, to point out individual sites and features. All of these interpretive areas and devices should be designed to be self-instructive for the visitor. No Agency personnel will be required in personal contact with

EXISTING EXAMPLE:
Trash collection too infrequent; trash receptacles in center of viewing area; disorganized access, parking and pedestrian circulation.

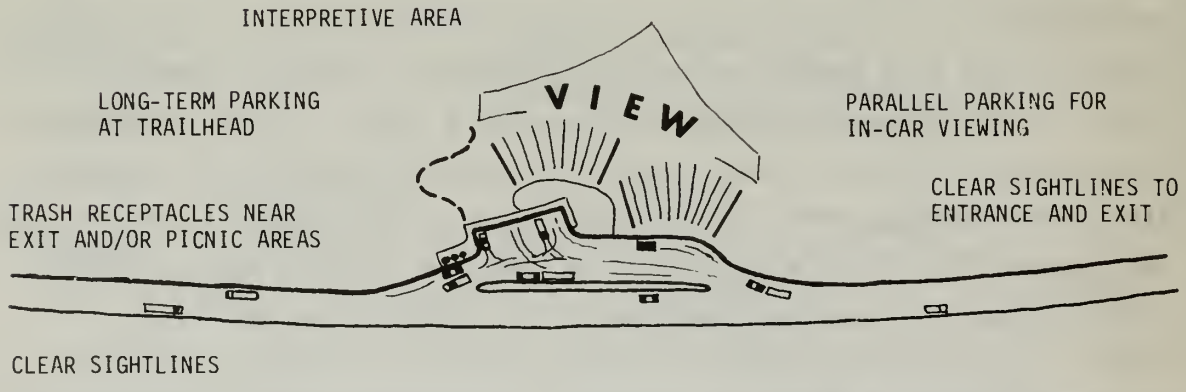
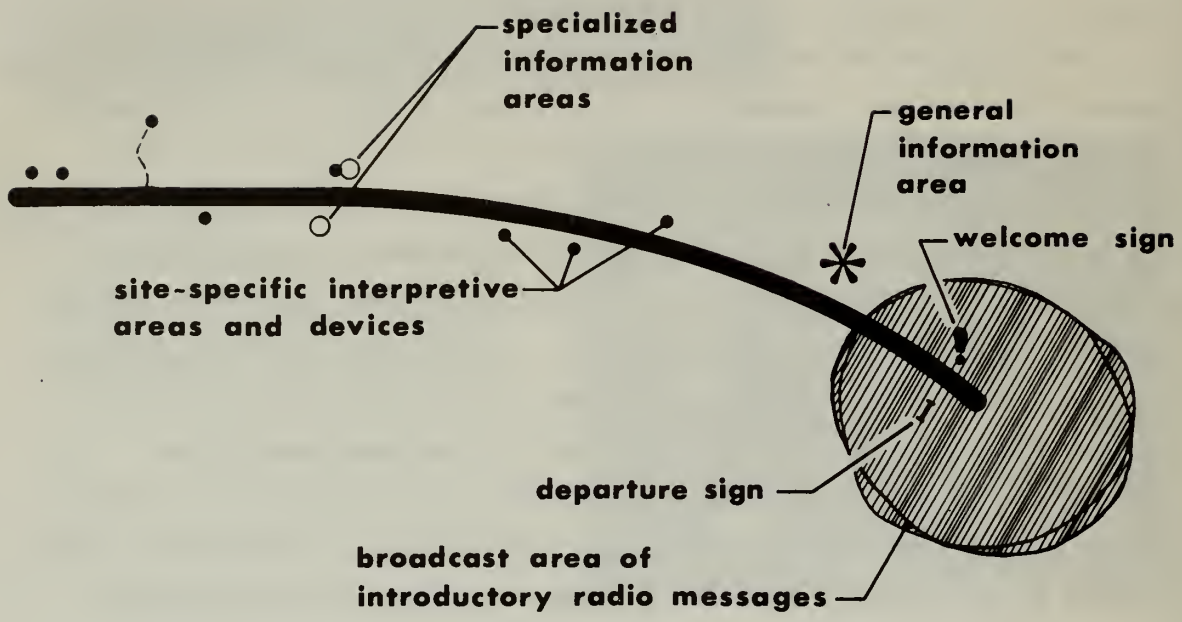


FIGURE 32. PREFERABLE TURNOUT DEVELOPMENT

the visitors. However, long-term planning for visitor management of the Fortymile Resource Area should include a major visitor center (perhaps located in conjunction with the Agency's administrative offices) where interested visitors can receive not only detailed information in written and graphic forms but can have an opportunity for contact with personnel knowledgeable about the area.

Initially, interpretative devices should be developed reflecting present information. However, if the current interest in developing the resources of the Area continues, more and more detailed information will become available. It seems reasonable to anticipate that any interpretative devices developed at the present time should be prepared in anticipation of periodic revision in the next few years as this detailing of information continues. This assumption applies to the production of any printed matter as well as to the production of any roadside displays which are erected in the immediate future. The development of information devices, particularly the graphic displays, should consistently be oriented towards the common coordination of data between printed matter and more permanent information distribution devices. This is simply to say that all maps and diagrams used on large permanent displays, or semi-permanent displays, should be designed to be reduced into either pocket-size foldout maps and brochures or designed to have the same graphic character and "style," if actual reproductions are not feasible.

Since, as mentioned previously, many visitors to the resource area apparently do not have the same familiarity with the Bureau of Land Management that they have with other resource-oriented management agencies such as the National Park Service and the National Forest Service, it will be highly desirable for the agency's logo to have a prominent position on all visitor information devices in the resource area and, most particularly, on the welcoming devices. The principal function of these welcoming devices is to arouse the visitor's curiosity so that he will be interested in seeking more information about the Resource Area and its administering agency, hopefully at an upcoming information area following the welcoming messages a short drive down the road ahead. Figure 33 shows a diagramatic description of the



INTERPRETIVE SITES AND DEVICES PRESENT INCREASINGLY DETAILED INFORMATION FOR THE VISITOR ENTERING THE AREA VIA A VARIETY OF MEDIA

FIGURE 33. INTERPRETATION CONCEPT

highway-oriented interpretive concept.

Radio Information

At the entrances to the Fortymile Resource Area, and even just prior to the actual entrance where possible, visitors should be advised to turn their radios to a wavelength on which they can receive a special interpretive message. This message will reinforce the general introduction to the area described by the written and graphic materials previously distributed. It will establish the ecological and historic themes of the Fortymile Resource Area. A sample message type for this purpose was developed in the interpretive section of this report.

Welcome to the Resource Area

Welcoming displays should be provided at the accesses to the resource area from the east at both the Alaskan Highway entrance and at the Top-of-the-World-Highway entrance from the Yukon Territory, Canada; from the south at the Glenn Highway and Richardson Highway accesses; and from the west along the Alaskan Highway access from Fairbanks.

Additionally, welcome to the Fortymile Resource Area should be made at the northern access along the road from Eagle, Alaska. While the majority of visitors arrive in Eagle by the highway and will have passed a welcoming display on their entrance to the area, some visitors enter by boat and airplane at Eagle and then change to highway transportation modes along this northern approach. The potential for growth in the numbers of tourists-visitors entering the resource area in this manner is impossible to predict at the present time. The general availability of air access with possible additional tourist access via the Yukon River at Eagle would seem to indicate a potential for increasing numbers of visitors from this northern direction.

On the approach from the west along the Alaskan Highway, it will be important to inform the tourist visitor west of Delta Junction that the historic areas of the Fortymile will be found by continuing to

FIGURE 34. LOCATIONS OF WELCOME DISPLAYS

travel east on the Alaskan Highway. Similarly, tourist visitors from the south along the Richardson Highway need to be informed that the historic areas lie to the east and not to the west of the intersection with the Alaskan Highway. Cooperation should be sought with the State Parks and Highway Departments to permit a notation about the upcoming recreation opportunities of the Fortymile Resource Area in their various roadside parks and rest areas along the Alaskan Highway.

The principal function of the Welcome display is to indicate the visitors' entrance to the Fortymile Resource Area. This graphic welcome will be their first exposure to the term "Fortymile." Consequently, care must be taken to assure that the graphic display is visually prominent so that the uninitiated visitor cannot pass by the display without noticing it. Specifically, this means that the display must be large enough in total size and the messages written large enough and with color contrast to be easily readable to highway traffic. Obviously, any obstructions between the highway and the graphic display must be avoided. The traveler should perceive: "Welcome," "Fortymile Resource Area," and "BLM" in keeping with the previous discussion on the need for identification with the area. Figure 34 shows the locations of proposed welcome displays. On the opposite side of the road, a marker should be placed to inform travelers they are leaving the Resource Area. This can have far less graphic impact than the welcome message but can easily contain a friendly message for a pleasant trip, early return, safe drive, etc.

Similar to the welcome displays, the roadside directional guides to the historic Taylor Highway need to be simple, easily readable statements, and they should reinforce the "Fortymile" and "BLM" impressions of the welcome displays. The Fortymile Resource Area and BLM logos should be incorporated into both of these display types.

General Information Areas

While the welcoming display to the Resource Area is designed to have a highly visible graphic impact for the highway traveler, the introductory areas should be designed for roadside turnout development

to permit a more lengthy and detailed interpretive exposure to the natural and historic points of interest within the Resource Areas and general tourist facility information. Consequently, the visitor needs to come into contact with these introductory areas after his initial welcome. Since visitors entering the area from the west along the Alaskan Highway will have received their welcome into the resource area at a considerable distance and time prior to their entrance into the Fortymile River Basin with its natural and historic interests, it will be important that the information area from this direction be preceeded by a message reinforcing the visitor's curiosity in those natural and historic interests. This will be provided by the signs from the Richardson Highway south of Delta Junction and on the Alaskan Highway west of Delta Junction. A location for a visitor information area east of Delta Junction and west of Tanacross will permit the merging of visitors approaching from the south and west and will permit their introduction to the Area in one facility rather than two. Ideally, the other visitor information areas will be located at short distances inside the Resource Area upon entering from the north, east, and south.

To the greatest extent possible, these areas should be located where a roadside turnout is possible with a panoramic view of a substantial portion of the Resource Area. From Delta Junction, the highway access is largely within the wooded river plain so that a roadside turnout is likely to be enclosed by vegetation and is not likely to be elevated on a topographic summit. Generally, the importance of quick visitor contact following his welcome to the historic area is considered to be more important than the necessity of a panoramic view.

A panoramic view near the eastern access along the Alaskan Highway will require more construction to prepare than other turnouts if it is located near Scotty Creek. Even greater construction costs would be involved at any site directly west of the U. S. Customs station at the border. Sites further to the west offer easier construction of a turnout, but reinforcement of the previous radio message and welcome display would be greatly diminished by time/distance. For these reasons, a site near Scotty Creek would seem to be the best compromise.

All information areas should include maps of the Resource Area

and the locations of natural and historic features of greatest tourist interest. In addition, provision should be made for literature distribution concerning these major features. All of the materials available within these visitor information areas should reinforce the attitude of protecting the natural and historic features of the Resource Area. This means that graphic messages on display in the visitor information area and any written literature available at these areas should heighten the visitors' curiosity and interest in the historic and natural features of the resource area. The messages should also emphasize the fragile nature of the resources and the need for considerate use by the visitors in their contact with these points of interest (see the discussion on interpretive messages elsewhere in this report). Considering the large percentage of visitors who are unfamiliar with the tourist offerings of the Resource Area as they enter it, the visitor information areas will play a major role in any changes in time or route scheduling by the tourist-visitor. Consequently, attractive photographic or pictorial sketches of the major interest points in the area and stimulating historic descriptions should be provided in these areas.

In order to help build visitor confidence in the Bureau of Land Management as a manager of tourist facilities, it is important that these information areas should provide certain basic conveniences which visitors have come to anticipate as a consequence of their contact with tourist facilities provided by other major resource management agencies. It is particularly important that the mapping and description of facilities within the Resource Area include those for visitor accommodations, food, petroleum products, automotive services, etc., in order to make any itinerary rescheduling to visit the Resource Area as convenient as possible. Accurate mapping of points of interest and identification of locations for food, refueling, and overnight accommodations are particularly important since this information is rudimentary at best in existing information sources. The visitor introduction areas should include a potable water supply and restrooms if possible. It is also advisable that dump stations for the release of sanitary wastes from self-contained camping units should be provided within the Resource

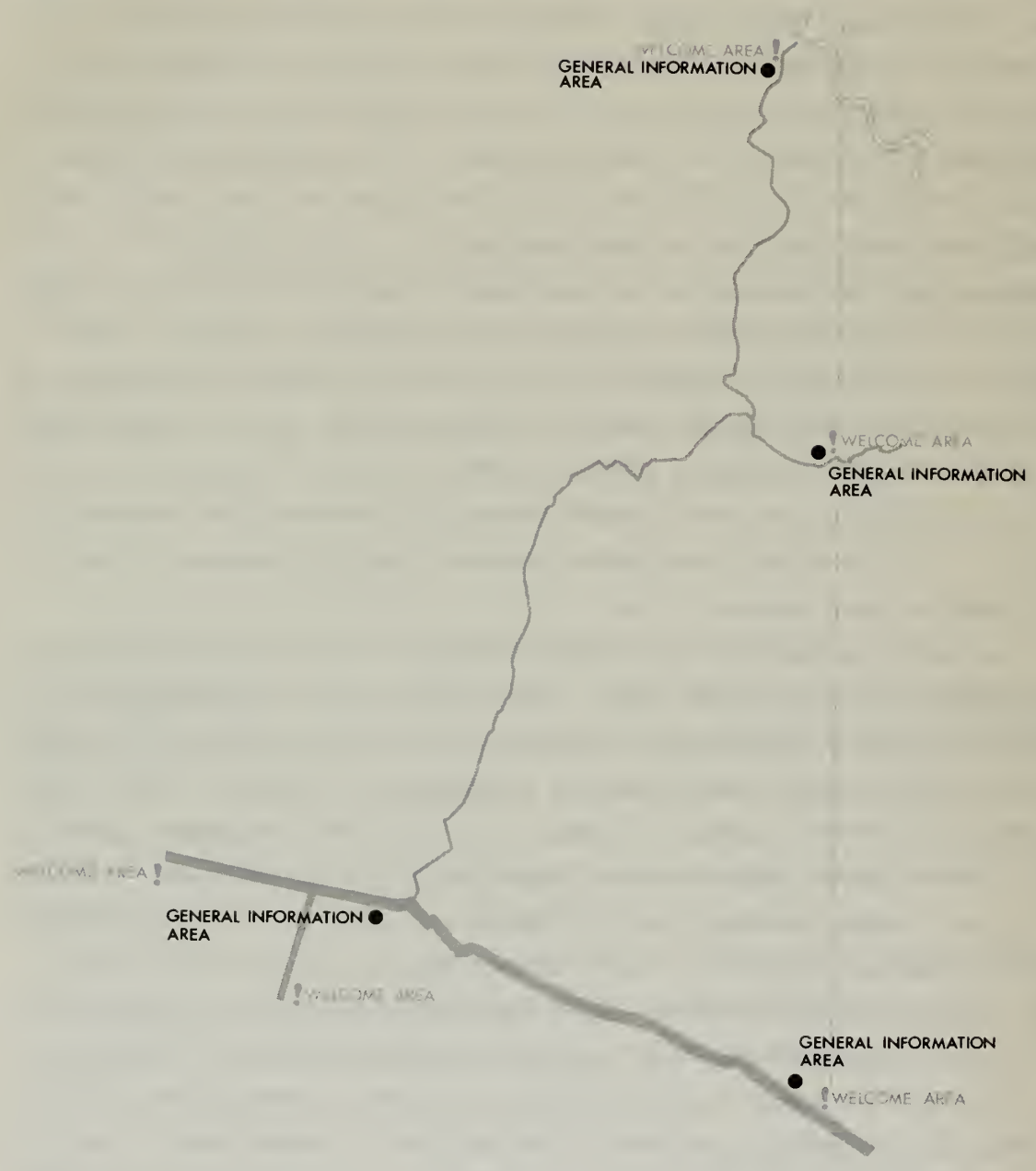


FIGURE 35. LOCATIONS OF GENERAL INFORMATION AREAS

Area, and the tourist information sites would seem to be advisable locations for some of these. See Figure 35 for the proposed locations of General Information areas and Figures 36 and 37 for an exemplary description of the information area proposed near Boundary, Alaska, at the access to the Resource Area from Dawson, Canada.

Specialized Information Areas

While the visitor information sites located near the points of access to the Fortymile Resource Area are designed to provide the visitor with general information about the variety of historic and natural features of interest and visitor facilities throughout the Resource Area, additional information sites should be located to provide the visitor with more specific information about major environmental regions within the Resource Area and to help interpret unique aspects of the countryside in more detail than is appropriate in a general information area. Descriptions of gold mining activity, the Taylor Highway history and routing, the history of the area near Eagle, the nature of forest fire ecology and management are examples of subjects which should be interpreted near the area where they occur. The Taylor Highway sites are particularly important in orienting visitors to the natural and historic regions through which the Highway traverses and the specific points along that highway route of interest to the visitor. It is important that the information available at these sites clarify which facilities and sites are available to the visitor along each of the two northern stretches of roadway since much existing data is contradictory at present. Some means must be found to clarify this contradiction in data for the persons who have not previously researched this recreational opportunity prior to their visit to Alaska. Any visitor contemplating a spur-of-the-moment change in previous plans should be provided with accurate information on which to base those decisions.

Three Taylor Highway sites need to be developed. One should be located near the south end of the Taylor Highway north of the Tetlin Junction intersection of the Taylor Highway and the Alaskan Highway.

FIGURE 36. BOUNDARY INFORMATION AREA PHOTOS

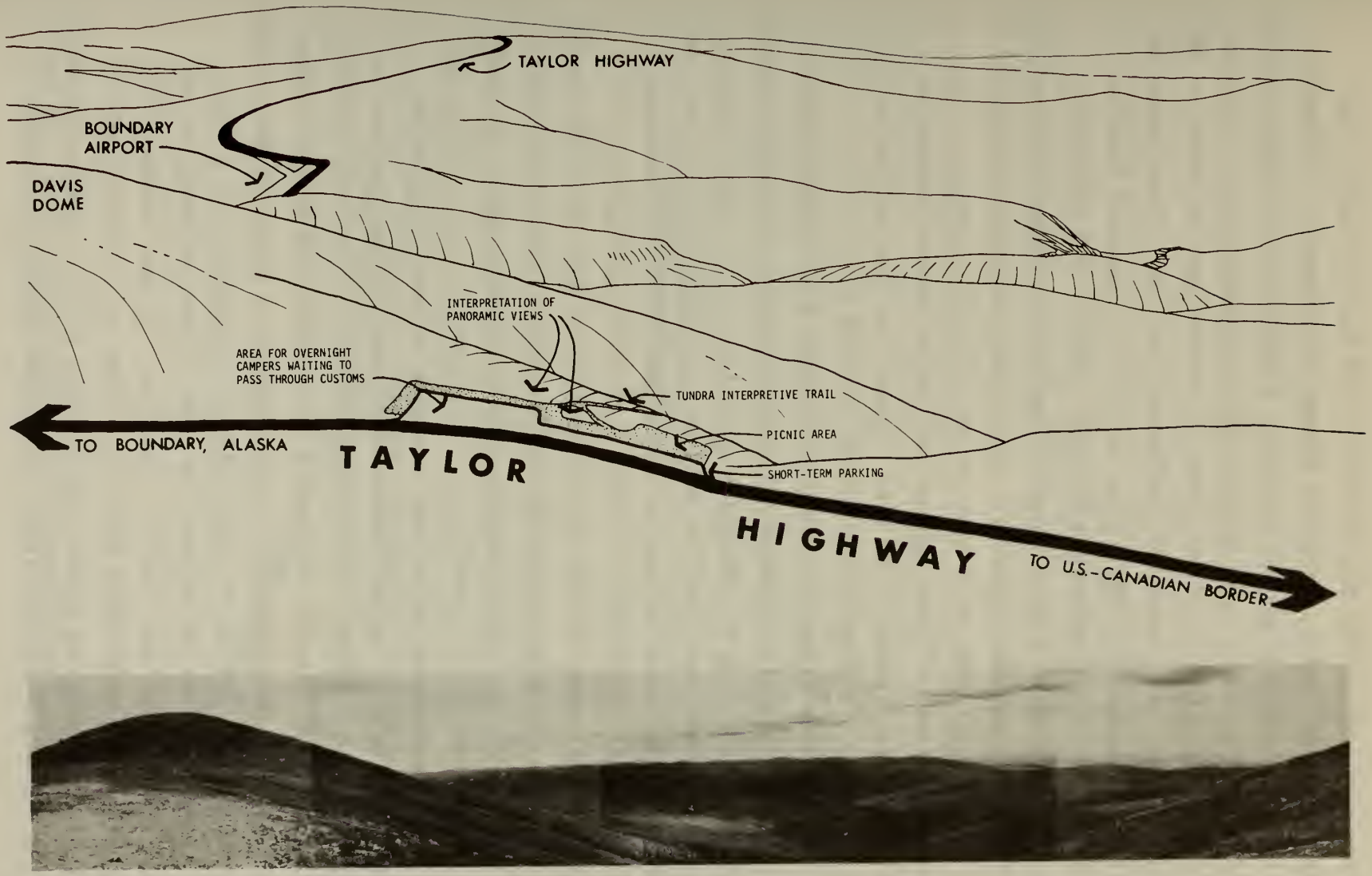


FIGURE 37. SKETCH PLAN OF PROPOSED BOUNDARY INFORMATION AREA AND PANORAMIC VIEW FROM THE SITE

Another site needs to be located on the road towards Dawson City, Yukon Territory, Canada, somewhere between the community of Boundary and the U. S.-Canadian border crossing. A third Taylor Highway visitor information area needs to be provided at the northern end of the road to Eagle, Alaska, south of the community and designed to relate to the upcoming points of interest for southbound tourists. The majority of existing information on the highway seems to be presented from the point of view of the northbound traveler. Many of the points of interest, particularly the panoramic views that are seen best from the positions of southbound travelers, are either overlooked entirely or only given casual mention in much of the existing literature. The proposed locations of these specialized Taylor Highway information areas and a description of the area proposed for the south end of the Taylor Highway are shown in Figures 38, 39, and 40.

Another specialized information area should be provided south of the village of Eagle, Alaska, which should emphasize information about points of interest in the immediate vicinity. As with other visitor information areas, this facility will be most effective if it includes a panoramic view which relates to the information being presented. Since Eagle can be expected to become a terminal destination point for recreationists, many tourists can be expected to push on to this destination without stopping at the visitor information area, particularly those traveling late in the evening who are concerned about the availability of overnight accommodations. Consequently, this information area should be located quite close to Eagle so that it can relate directly to the existing and proposed historical reconstructions in Eagle and at Fort Egbert. With proper reference to the overlook site made at the facilities in the town of Eagle and at the historic reconstruction sites, many tourists can be expected to return to the visitor information area outside of town either on a separate trip or upon their departure from the vicinity in order to take advantage of the panoramic view available from this location. In this fashion, this information area overlooking Eagle will serve as an introduction for those visitors stopping before entering town and as a summary overview for the visitors who have already visited the points of interest in

FIGURE 38. LOCATIONS OF SPECIALIZED INTERPRETATION AREAS

FIGURE 39. SOUTH TAYLOR HIGHWAY INFORMATION AREA LOCATION

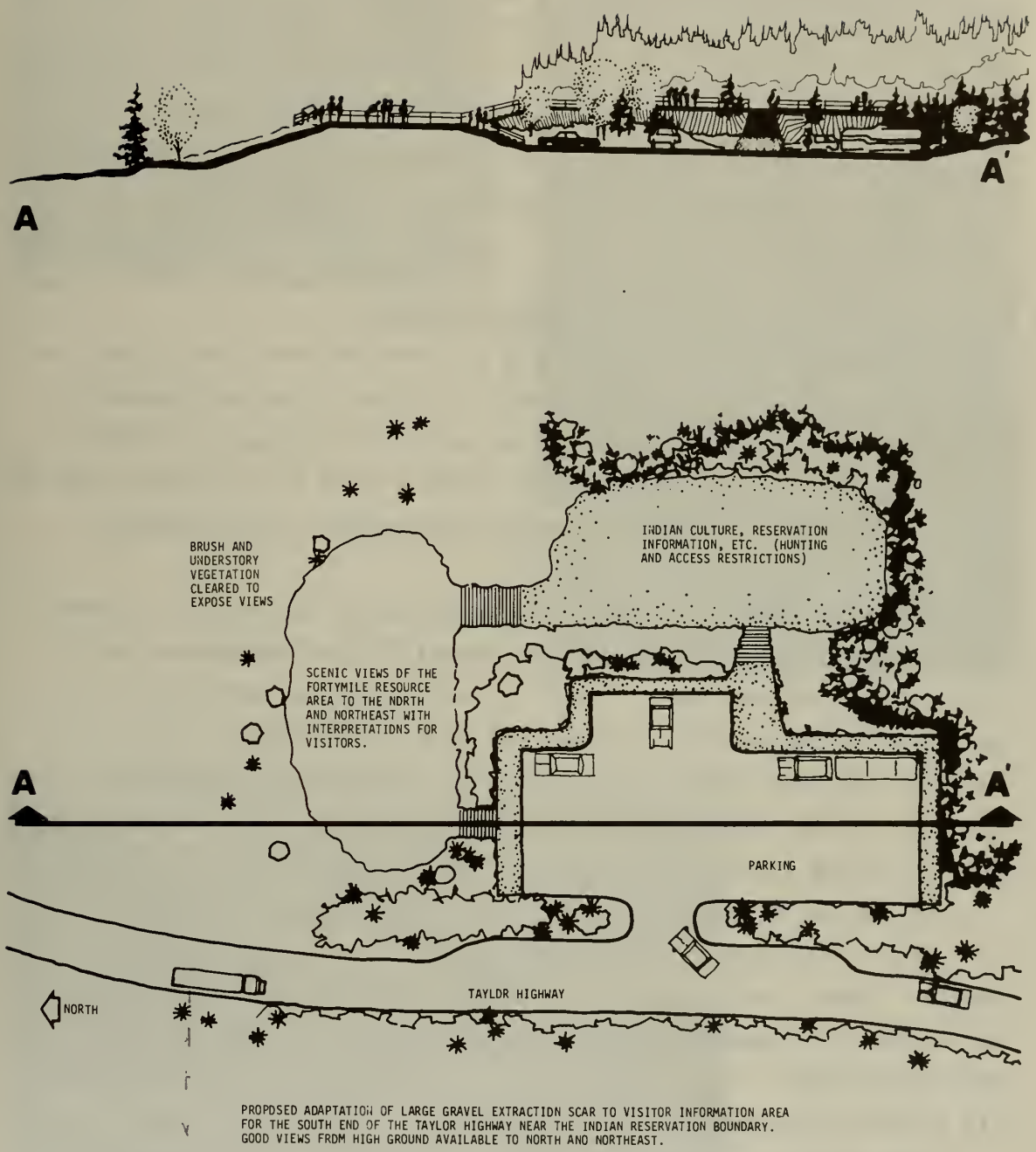


FIGURE 40. SOUTH TAYLOR HIGHWAY INFORMATION AREA SKETCH PLAN

Eagle and subsequently developed an interest in the panorama of the vicinity available at the information site.

Since tourist accommodations, potable water, restrooms, etc., will be provided in Eagle, there will not be the need for these facilities at the Eagle information site which exists at the other information areas provided by the Bureau of Land Management. Figure 41 illustrates the potentials of an overlook site near the abandoned radio tower site on the hillside southeast of Eagle.

Site-Specific Interpretive Areas and/or Devices

Interpretive information should be provided along the highway corridors at the sites of unique historic, cultural, and environmental points of interest such as those previously illustrated in Figures 21, 22, and 26. These can range from a roadside sign to a sizable roadside turnout with hiking trails and various explanatory interpretative devices.

Along the Alaskan Highway these areas would be largely confined to explanations of functions of the Bureau of Land Management facilities within this corridor. The fire guard stations, park facilities, and administrative offices should all have identification signs visible from the highway and explanatory interpretative signs or other devices for the interested tourist. Many signs on the Alaskan Highway will be of the travel distance and direction category.

On the Taylor Highway, however, a great variety of points of interest exist which will each require some type of interpretive device. These locations all need to be carefully mapped and logged according to mileage (using the mile post or, preferably, kilometer post designation) and should be made available in all publications and all information areas relating to tourist travel on the Taylor Highway.

Some specific sites along the Taylor Highway which merit special attention are:

Tetlin Indian Reservation

Views of the Alaska Range

King Creek Burn Remnants

FIGURE 41. EAGLE OVERLOOK

Chicken Burn Remnants
Views of Mount Fairplay
Chicken Townsite
Wade Camp
Jack Wade Dredge
O'Brien Roadhouse
Liberty Creek
American Creek

See Figure 42 for a diagramatic mapping of these sites and Appendix A for a more detailed mapping of the Taylor Highway interpretive sites.

A brief interpretive theme for each site is described as follows:

Tetlin Indian Reservation -- Boundaries, history, present activities, hunting restrictions, future as a nature community, population, form of government, economic activity, size of reservation.

Views of Alaska Range -- Major features of the vista, distance from the point of viewing, relationship to the entire range, intervening features. These views will be primarily from the west side of the Taylor Highway, looking south.

King Creek Burn Remnants -- Size, date, cause of ignition, duration, men, cost of equipment involved, resources lost, change in ecological character, lasting impacts, evidence of recovery--note comparisons with other burns illustrating differences in fire fighting techniques and recovery with time.

Chicken Burn Remnants -- Size, date, cause of ignition, duration, men, cost of equipment involved, resources lost, change in ecological character, lasting impacts, evidence of recovery. This should be a turnout display with dioramas, photos, and a recorded message.

View of Mount Fairplay -- These views predominate traveling north and are identified on the highway corridor interpretive map, Appendix A. Mount Fairplay has a unique geological history, in addition to serving as an excellent example of vegetation transition for the different life zones. A plaque diorama such as shown in Figure 43 would be an effective interpretive device.

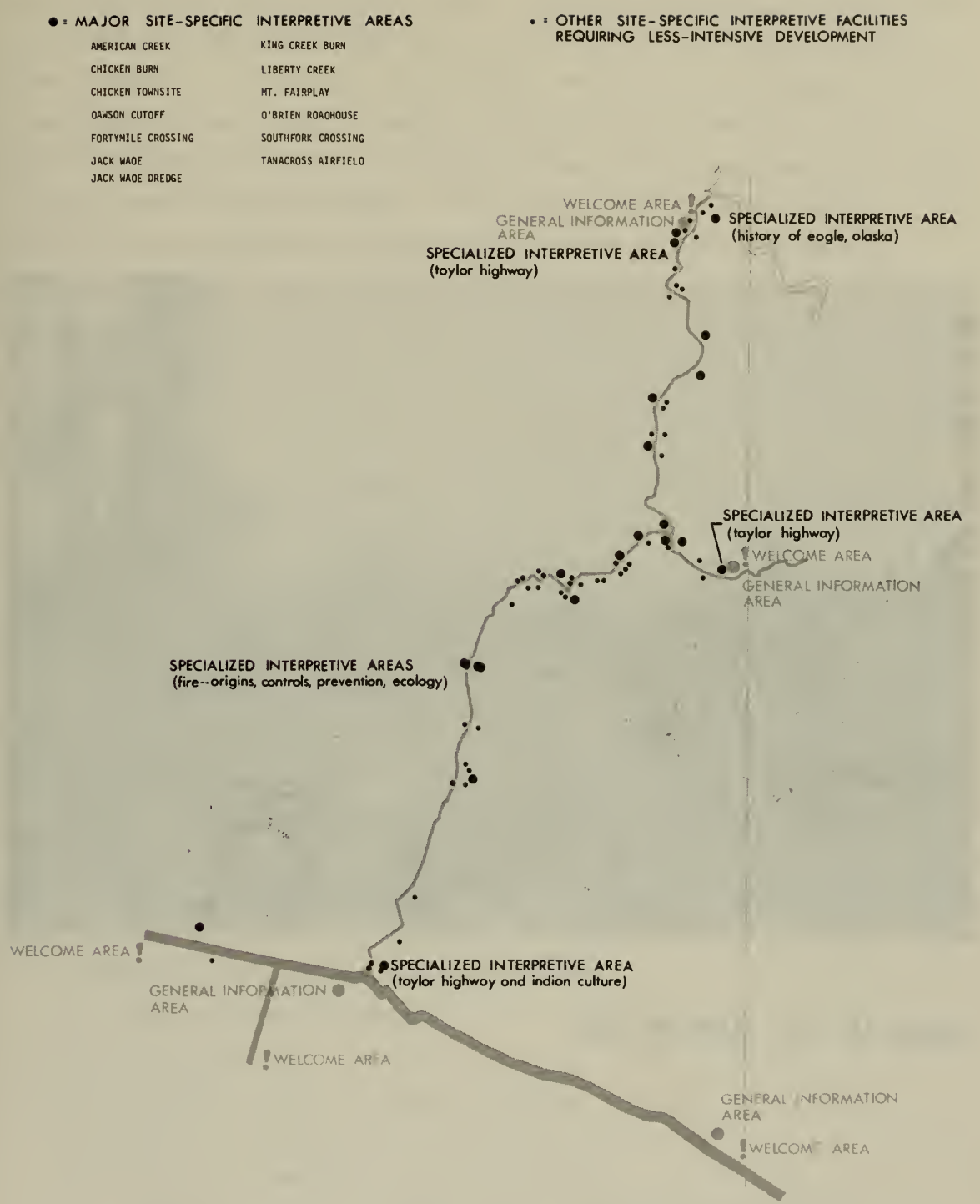


FIGURE 42 SITE-SPECIFIC INTERPRETIVE AREA LOCATIONS

FIGURE 43. MT. FAIRPLAY VIEW

Chicken Townsite -- The town of Chicken is on patented land and therefore is not open to public use. The Chicken dredge, the only complete unit of its kind in the basin, is owned by U. S. Steel Company. Several families still live in the town. Most of the buildings are in a reasonably sound state of repair. Interpretation should include a map and pictoral display at a highway turnout since the townsite is not in clear view from the Highway. The display should use pictures, artifacts, and recorded messages to relate the history and lore of Chicken. A small display could be located near the Chicken Creek Crossing to interpret the history of the dredging and subsequent mining activity. Contact should be initiated with U. S. Steel to investigate the possibility of moving the dredge closer to the road. It may be possible to secure the machine as a donation or to entice the company to become a partner with BLM in the interpretation of Chicken. Negotiations should be initiated with the present owners and residents of Chicken concerning the prospects of rehabilitating and restoring the abandoned buildings. The Chicken roadhouse or store could be developed as an on-site interpretive museum and possible over-night stop along the Highway. Mr. Paul Bytell, who still lives at the townsite, could provide assistance in preparing a detailed interpretive site plan for the townsite. Since this has remained as the most stable gold rush townsite in the area, and because it is accessible from the highway, it should be afforded high priority in the interpretive plan. With proper site planning, this town could be viewed and enjoyed by the majority of visitors to the Fortymile Country.

Elements of the Chicken Interpretive Plan:

a. Town building inventory
b. Town site plan
c. Condition class of each building
d. Historical report for each building
e. Artifact inventory for each building
f. Circulation plan -- interpretive walk through the town
g. Interpretation of on-going gold mining activities

h. Potential for a seasonal concessionaire--food, lodging, etc., for people spending several hours/days at the site

i. Museum Plan--many scattered unassociated artifacts from throughout the vast Fortymile mining network could be displayed and interpreted, and thus protected, at Chicken. Here there would be the opportunity for maximum public exposure and education.

j. Central Area BLM Visitor Contact Station--rather than direct visitors to the Chicken Fire Guard Station, which may interfere with resource protection activities, the BLM could develop a visitor contact station in Chicken. A wide range of information could be distributed to all travelers and recreationists visiting Chicken, which would be a major attraction on the Taylor Highway. This facility may be physically associated with the museum structure.

k. Living History Activities--in cooperation with area residents, many of whom are still actively involved in gold mining, the BLM could arrange for seasonal living history exhibits. This would include the full range of activities which once took place in and around the Chicken townsite.

Wade Camp -- This small patent, now occupied by Mr. George Robinson, is near the site of an important discovery on Wade Creek. There was never a town per se but a community consisting of a string of cabins along the creek in the vicinity of the major gold finds. Mr. Robinson has a sizable collection of artifacts within the complex of buildings which constitute the Jack Wade Community. A small roadside turnout could be developed near the Wade site with a message and perhaps some photos of past events which took place along that section of the river. The researchers for this study found him most informative as he also was to the geologists Foster and Keith in preparing the report, Geology Along the Taylor Highway, Alaska, published in 1969. (16)

Jack Wade Dredge -- The dredge, which is located in Jack Wade Creek, operated from 1935 to 1941 which it was shut down at its present

resting place. It is of major historical importance in the Fortymile because it was one of the first bucketline dredges used in the area. It also worked for the longest period of time. The inner workings have been removed and the buckets are scattered throughout the mine tailings on the west side of the road. The dredge with its immediate surroundings is shown in Figures 44 and 45.

The dredge is the most imposing structure along the highway. It sets at a bend in the river, just to the north of a large bend in the road. It looms into sight almost without warning. At present, Mr. Robinson claims ownership of the dredge and in a conversation with the investigators threatened to destroy the dredge for public safety. His rationale for not doing so is the enjoyment of people stopping at the dredge to take pictures and climb on the massive hulk.

Interpretive development of the dredge as a major attraction would require a complete site plan. At present there is parking for only a few cars on a small bar of tailing materials in front of the dredge. The dredge itself is in a state of disrepair. It is full of silt and gravel. If cleared out and properly secured, a walkway could be safely developed to allow visitors to walk from the engine room to the pilot house. Pictures and sketches could be effectively used to explain the operation of the dredge. A recorded message, utilizing input from George Robinson who worked on the dredge, could be used to help interpret the history of dredge mining on Wade Creek. Development for the Wade dredge site is shown in Figure 46.

This site has great potential as a popular interpretive area on the Taylor Highway. Eventually, the site should be developed so that the artifacts associated with the dredge can be collected together in a nearby location for the best interpretation. At present the road separates the dredge from the related artifacts scattered on the west side. This has a tendency to cause visitors to wander back and forth across the Highway which is particularly dangerous due to the curves in the road in this area. Due to the limited space between the bluff overlooking the site and the creek, the Highway should eventually be rerouted to avoid cutting through the interpretive area. Since this almost certainly would require moving the Highway across the creek as

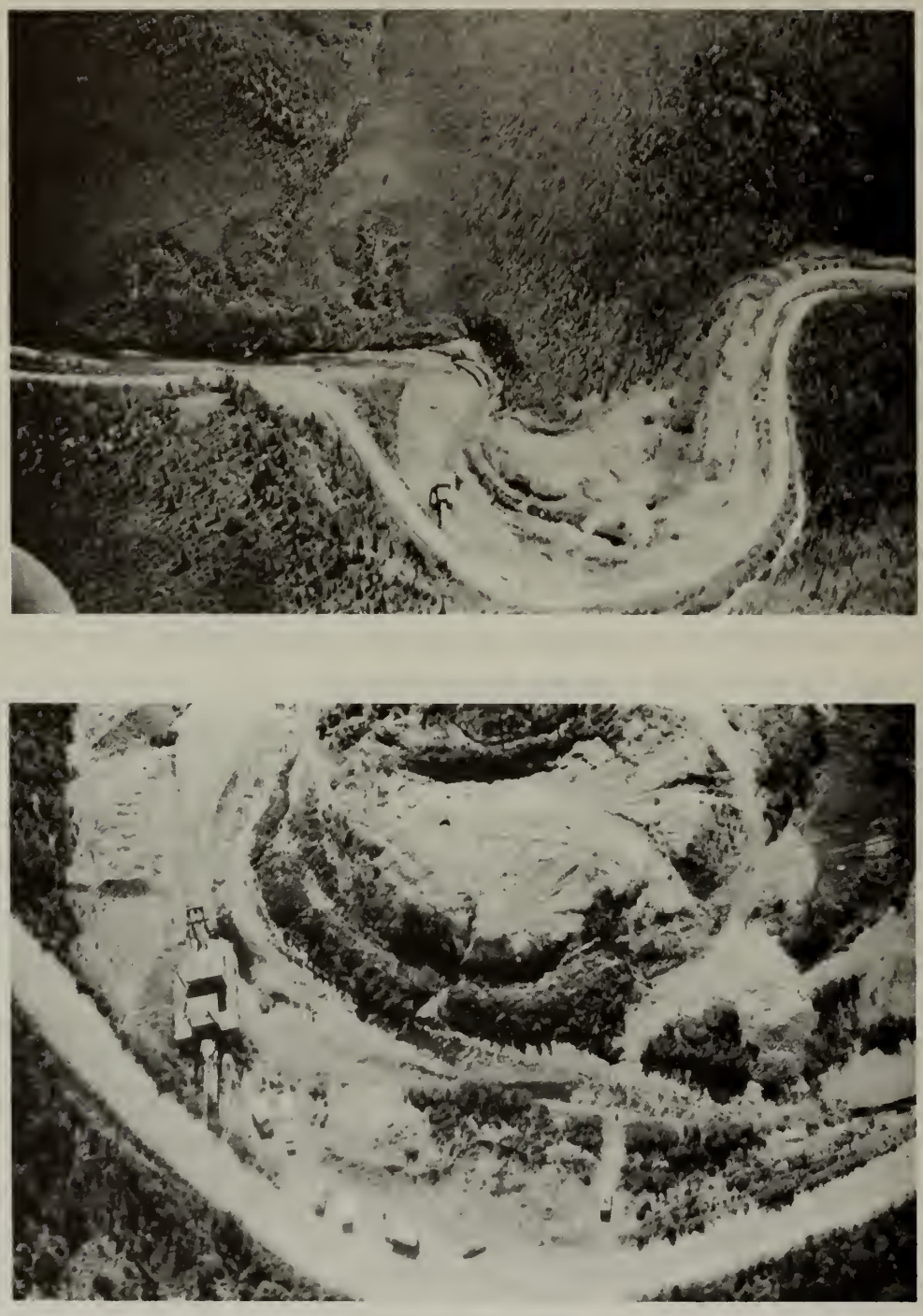


FIGURE 44. WADE DREDGE SITE AND VICINITY

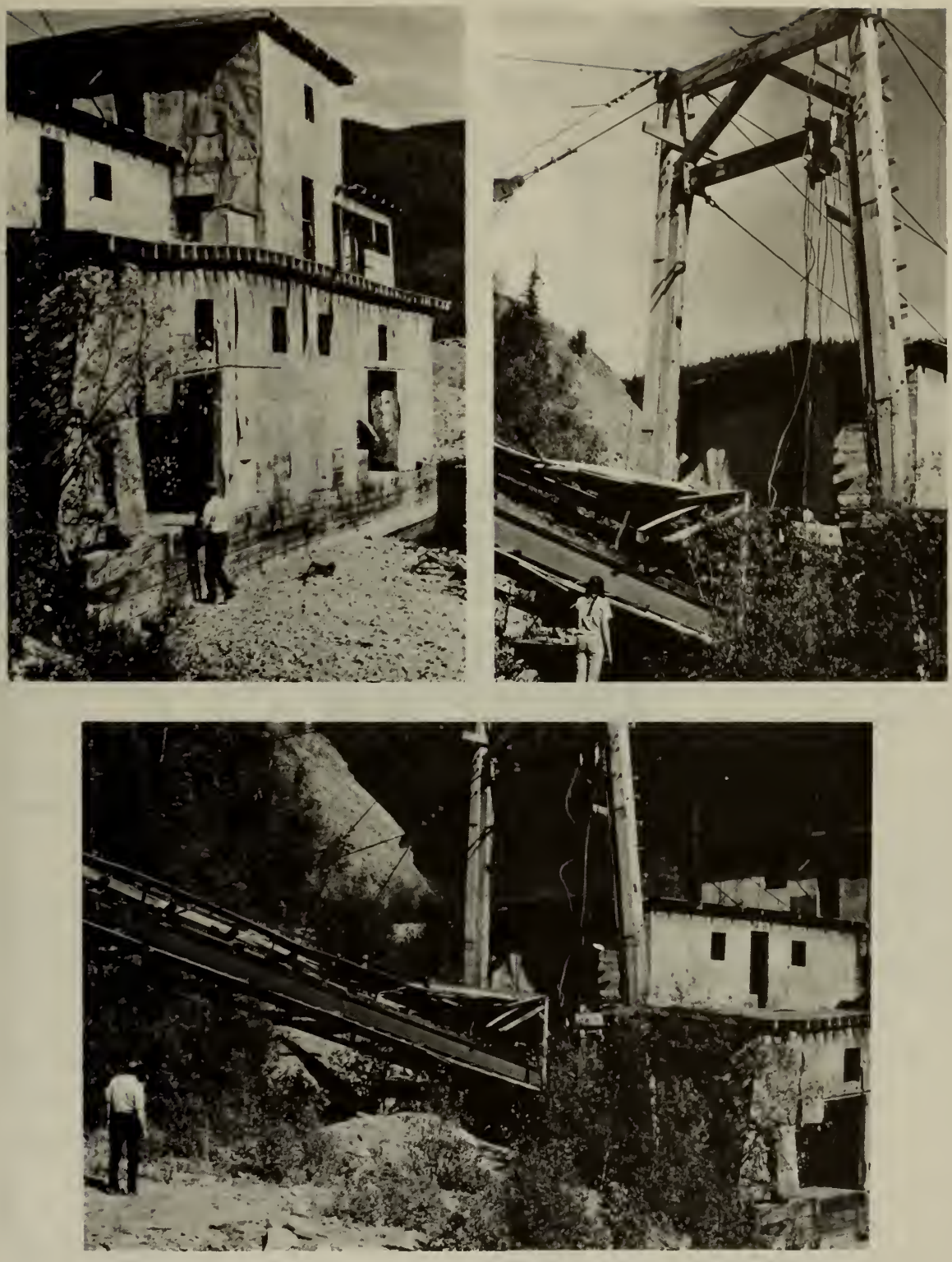


FIGURE 45. WADE DREDGE

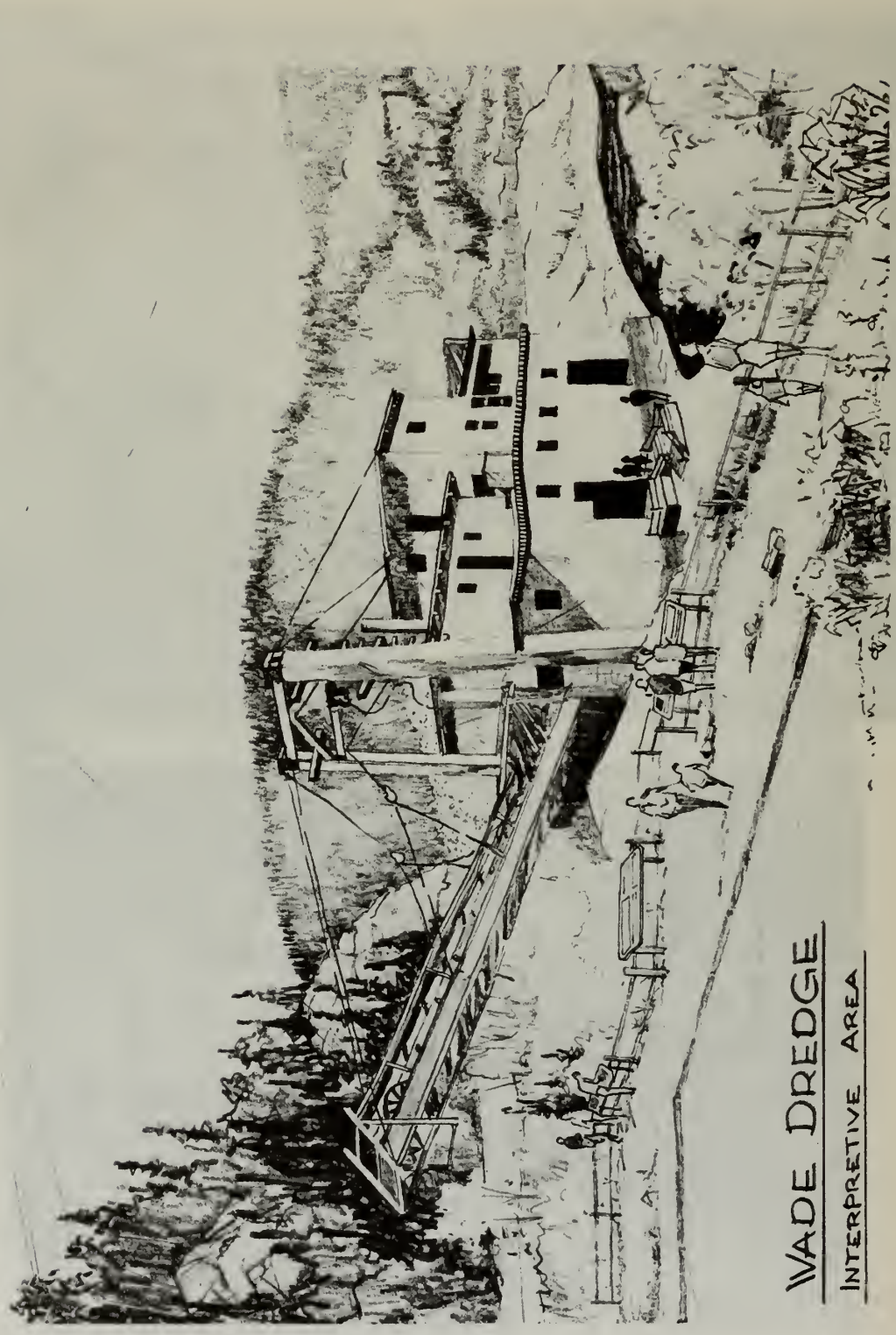


FIGURE 46. INITIAL INTERPRETIVE DEVICE FOR THE WADE DREDGE SITE

illustrated in Figure 47 and since the expense associated with such a move may delay its execution, an interpretive site development plan should be prepared which tries to create a more orderly parking area separated from the passing traffic and better sight lines for motorists in the interest of pedestrian safety. The interim site improvement should be designed to complement the more comprehensive site plan and should be considered as the first phase of progress towards the latter plan's implementation as illustrated in Figure 48.

O'Brien Roadhouse -- The O'Brien Roadhouse, located at milepost 125.4, is one of the few patent land areas adjacent to the Highway. The general store, fuel depot, tavern, and lodging represent the only commercial tourist accommodations between Tetlin Junction and Eagle at present. The site has some historical significance. However, it functions more as a concessionaire within the federal property. A small interpretive sign explaining the history of the roadhouse would be adequate.

Liberty Creek -- The present campground at Liberty Creek is located near a small cluster of mining cabins. These cabins, while still in use, are good examples of the type of cabin and cache found throughout the Fortymile country. A small interpretive sign in the campground would be adequate.

American Creek -- The American Creek area continues to be an area of active gold mining. Mr. Wyman Fritsch continues gold mining operation on American Creek as shown in Figure 49. The mining operation is just a short distance from the road. It would be possible to develop a tourist observation area, where visitors could view the operation and have the benefit of interpretive devices which explain the mining process, if it is determined that they can be continued under the proposed water quality standards.

Visitor Center

In the formulation of a comprehensive visitor management plan for the Fortymile Resource Area, it seems inevitable that a major visitor

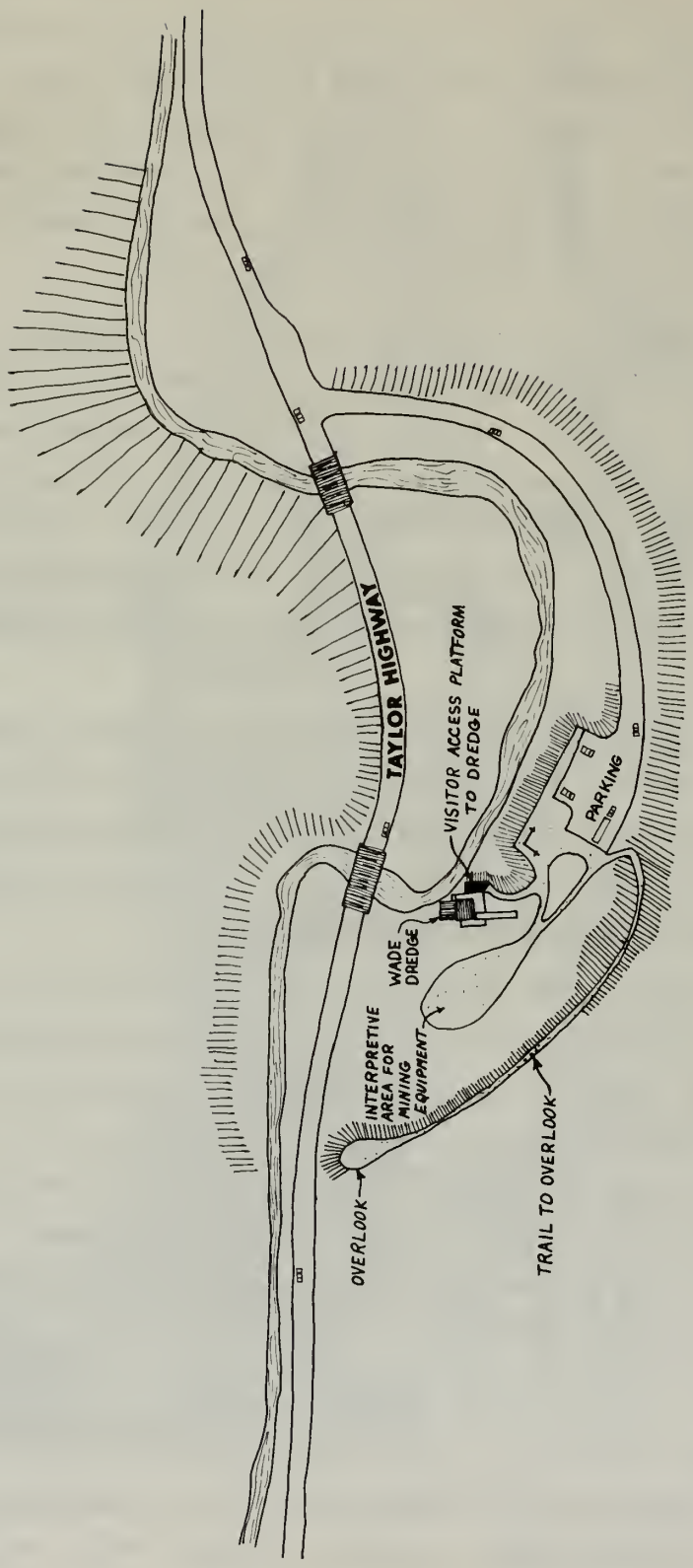


FIGURE 47. WADE DREDGE--DEVELOPMENT PLAN

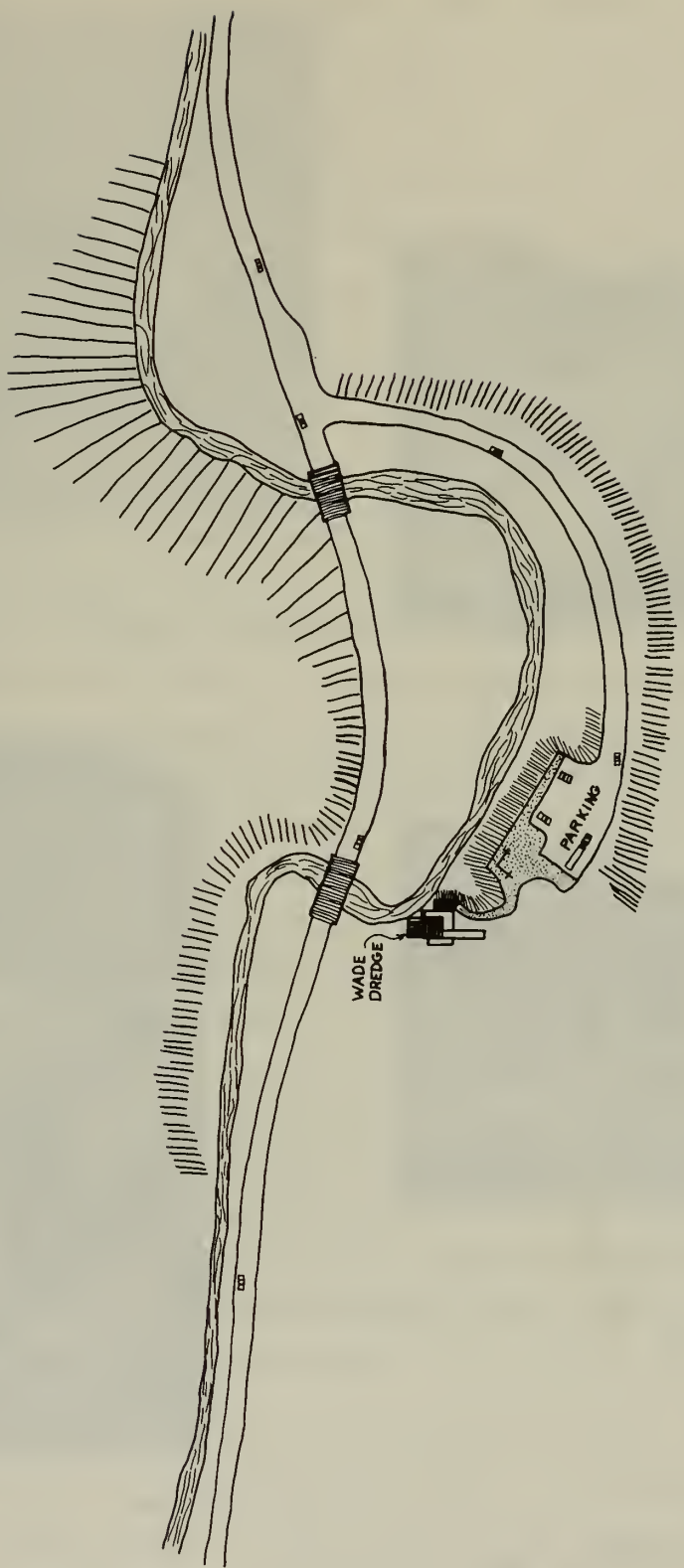


FIGURE 48. WADE DREDGE--FIRST PHASE OF DEVELOPMENT

FIGURE 49. GOLD MINING ON AMERICAN CREEK

center will become appropriate with the expected increases in Alaskan tourism, particularly those increases associated with Dawson City, Yukon Territory, Canada, and Eagle, Alaska. It also seems quite logical that this need will run parallel to the need for administrative office space. In the immediate future other interpretative areas and devices would seem to be of primary importance since they will relate more directly to visitors in the various parts of the Resource Area. From a budgetary point of view, the development of interpretive devices throughout the area which require minimum amounts of personnel contact with the visitors would seem to be the wisest immediate investment. However, as total numbers of tourists increase, as the tourist familiarity with the Resource Area generates requests for more and more specific information about opportunities within the area, and as the administrative needs for management become better known, a combination visitor center and administrative office would seem highly desirable. The location for this facility should be near the corridors of primary access to the area by visitors and should be located in a site which reflects the historic and landscape character of the resource management area. These constraints would seem to indicate a location for the administrative and visitor center either on the Alaskan Highway near the junction with the Taylor Highway or on the Taylor Highway quite near that junction. In the latter case, this would only seem feasible if arrangements could be made to locate it within the Indian Reservation area. It is felt that other sites north of the Indian Reservation boundary, as presently defined, would place the visitor center too far from general public access along the Alaskan Highway which is anticipated to continue as the major route for visitors interested in the tourist attractions available in the Fortymile Resource Area. For this reason, proximity to the Alaskan Highway would seem to be of primary importance in informing unknowledgeable tourists of the recreation potentials and presenting them with the opportunity to modify their previous travel plans in order to include an extended visit.

Of the sites along the Alaskan Highway, it is definitely felt that the desirable location would have to fall somewhere between Tetlin Junction and the fire guard station at Tanacross. A location in Tok,

Alaska, would have the advantage of accessibility by the greatest number of tourist visitors since it would be at the intersection of the Alaskan Highway and the Glenn Highway. Any other point would provide a location which would not contact Glenn Highway travelers who turned in the opposite direction down the Alaskan Highway from the visitor center location. The primary problem with such a location is the limit on in-town sites having a landscape character representative of the historic and ecological resources of the Resource Area. The existing tourist information facilities have not been located on sites large enough to accommodate an attractive landscape setting commensurate with the character of the Resource Area.

If the visitor center cannot be located on an in-town site large enough for the center and having a landscape character in keeping with the tourist themes of the Resource Area, an alternate site as close as possible to the intersection of the Glenn Highway and the Alaskan Highway at Tok should be found, and accurate distance and directional signing should be provided on the Glenn Highway and on the Alaskan Highway to assure that all visitors will know exactly where it is located as they approach the Area.

A Taylor Highway location would offer an appropriate environment for such a facility but would not have the general visibility to passing tourists that Alaskan Highway sites possess. If a Taylor Highway site is chosen for its setting, a site adjacent to the information area proposed near the Indian Reservation boundary would be very appropriate and compatible with the development proposed previously. Figure 50 illustrates a possible extended development area at this site. Any Taylor Highway location for a visitor center would require very complete distance and directional signing on the Alaskan and Glenn Highways.

Fortymile River

The Fortymile River is the second major recreation corridor in the Resource Area. The natural features of the river, as well as the hydrology, are described in the resource inventory of the Fortymile

FIGURE 50. POTENTIAL VISITOR CENTER SITE ON THE TAYLOR HIGHWAY

Area. The Fortymile National Wild and Scenic River proposal provides for an inventory and description of the major recreation features of the river.

The Fortymile River is an extensive pattern of small tributaries and streams which drain some 6,562 square miles of the Yukon-Tanana Uplands. This vast network consists of well over 1,000 miles of unnamed tributaries. A major portion of the upper watershed is pristine wilderness.

For interpretive planning and recreation resource management purposes, the river is broken into two categories. First is the upper tributaries and unnamed segments where some mining took place but where human access today is virtually impossible. The mining impact on these portions is negligible and their environs are virtually pristine. Second, and of importance from the recreational aspect, are the larger streams or main forks where heavy mining with resultant environmental modification took place. These reaches are easily accessible and thus more subject to human encroachment. Also, these reaches are most desirable for rafting and canoeing. Fishing is limited to the early spring.

Aerial examination of a large area of the Fortymile drainage indicated that the geologic, physiographic, topographic, and vegetative character of the river is for the most part fairly consistent throughout the entire basin. Because most of the natural elements are reoccurring--that is, numerous examples of key features occur repeatedly at frequent intervals along the recreational portions of the river--the detailed interpretive plan for a selected stretch could easily be extrapolated and generalized to apply to the entire recreation section of the river.

The investigators rafted that portion of the South Fork and flew by helicopter that portion of the Fortymile shown in Figure 51. High altitude color imagery of the river was taken in August 1975. A segment of the rafted portion of the river was used to prepare a detailed interpretive scheme. This scheme can be generalized for application over the entire recreation river.

We will give deference to the Alaska Planning Group Task Force

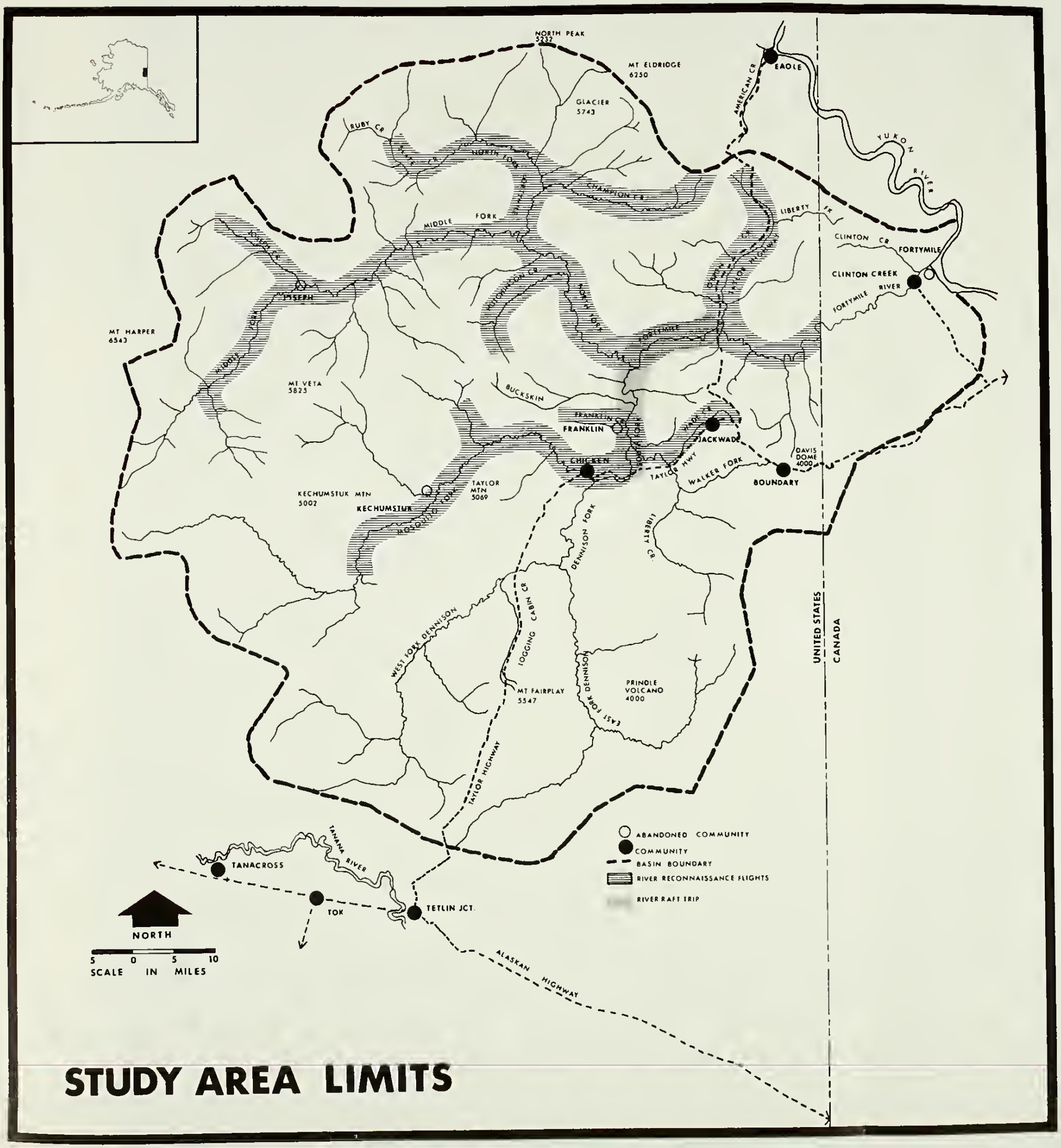


FIGURE 51. FORTYMILE RIVER SYSTEM

Report as to the detailed analysis of the recreation attributed of the river as a waterway for rafting and canoeing. (12) Fisheries data is available from the Bureau of Sports Fisheries and Wildlife and the Alaska Department of Fish and Wildlife. No on-site measures of water quality were made, however, observation indicated that except for normal sedimentation, the water was crystal clear.

Within each recreation stretch of the river, there are feature elements which should be emphasized in the interpretive program. These feature elements include:

* Water features -- riffles, rapids, sand, and gravel bars
* Biologic features -- plant materials, discontinuous v. continuous permafrost, etc.
* Geologic features -- rock outcroppings, exposed strata, uplifts, etc.
* Landscape features -- drastic compositional changes, striking vistas, focal elements
* Historic features -- cabins, caches, tools, parts of large pieces of mining equipment, utensils, furniture, books, newspapers, magazines, notebooks, etc. Points of key events
* Mineral features -- examples of areas where gold was found, how gold was mined, the nature of the residual material
* Recreational features -- periods of high and low flow, water depths, riverside camping areas, rough areas (white water), hazard or special caution areas
* Community features -- remnant mining communities which are easily accessible from the river. Examples include Franklin, Joseph, Steele Creek, and Moose Creek communities
* Wildlife features -- areas along the river route where wildlife are known to frequent. For example, a fair population of water fowl were spotted along several calm stretches of the South Fork

A representative example of some of these feature elements from the slides taken on the investigators raft trip is shown in Figure 52.

These examples represent the kinds of elements which occur throughout the Fortymile system. For the most part, the elements can

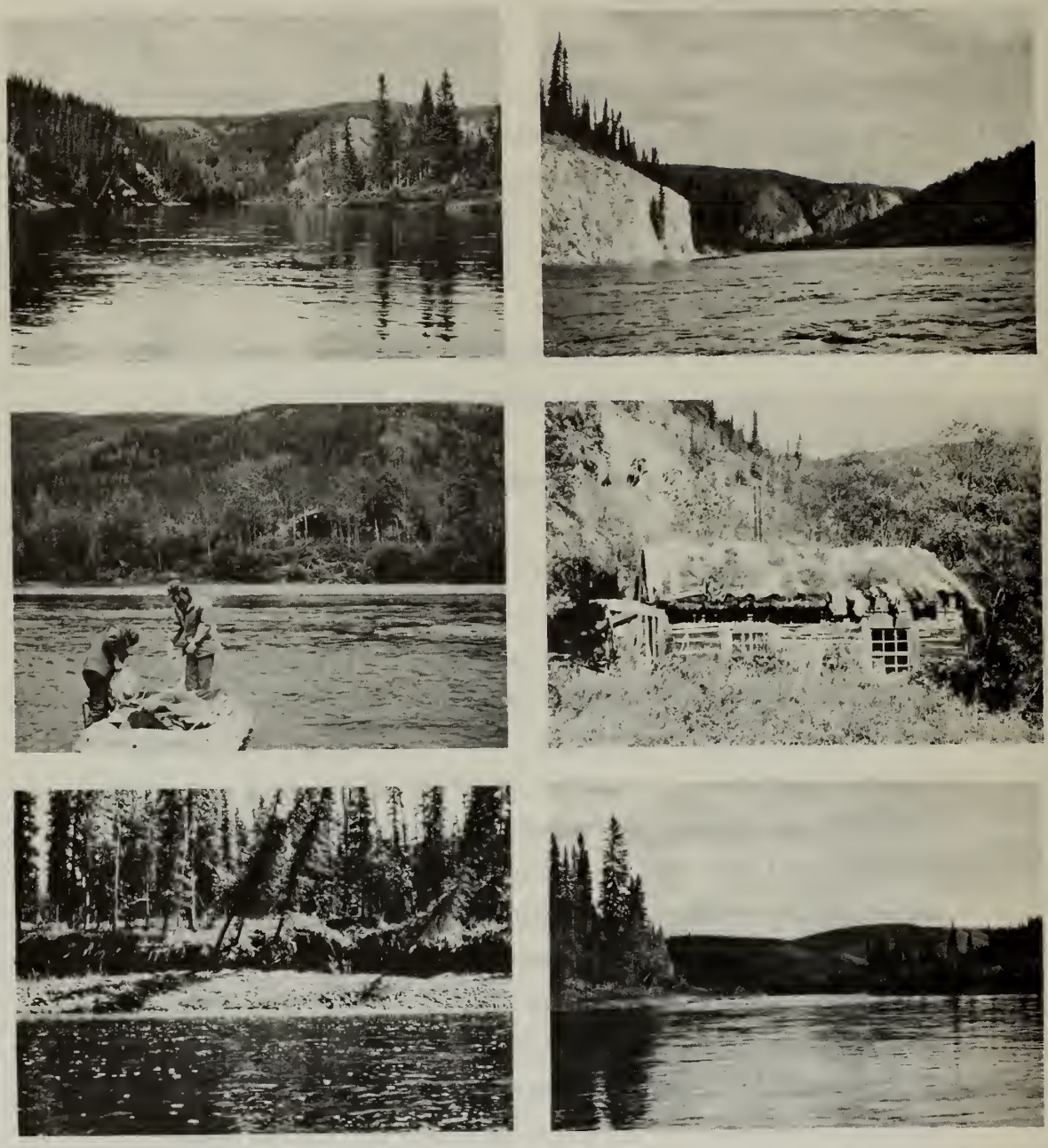


FIGURE 52. TYPICAL VIEWS OF FEATURE ELEMENTS SEEN BY RIVER TRAVELERS

best be interpreted by means of self guiding float trip brochures. Those complexes of unique features or well preserved cabins and mining remnants can be designated as river interpretive stops. With the exception of site such as the Franklin Community, these complexes can be interpreted through the self-guided trail concept. Because of their remoteness, the most desirable device would be the plaque type sign, either on a secure post or mounted directly to the structure. Explanative dioramas and sketches could be used to illustrate activities, processes, or components.

Many of the sites within the non-accessible portion of the river system contain artifacts. As time and resources permit, these should be collected, carefully examined, and cataloged. To gain the full interpretive value of these resources, it would be desirable to remove the most unique, complete, and valuable from the original site and house them in either an interpretive museum, reconstructed cabin, or other interpretive site. The suggested Area Headquarters Museum or field museums at places such as Chicken or Eagle would be repositories where these artifacts could be viewed by the greatest number of visitors. Certain items could be placed in portable displays and taken to riverside interpretive units such as that proposed for the Franklin Community for the duration of the recreation season. Serious thought should be given to the advisability of leaving valuable artifacts at cabins which are falling into disrepair and which are vulnerable to treasure hunters who are suspected of being active in the area.

The proposed framework for the river corridor interpretive system should be self-guided river tour brochures. The guides would be keyed to dominant features and/or non-obtrusive markers visible from river craft. A sample frame of such a guide is shown in Figure 53. Because of the slow flowing nature of many stretches of the river, rafters and canoeists will have ample time to read a self-guiding brochure which could describe in considerable detail the key features within the corridor. It is our opinion that this provides an opportunity to concentrate efforts on interpreting the geology and ecology of the river corridor with minimal construction impact.

At major nodes such as historical, community, or biologic features

Use geologic formations to key upcoming points of interest

Warn travelers of necessary maneuvers. -- Franklin to the left.

FIGURE 53. SAMPLE PAGE FROM A RIVER TRAVEL GUIDE

self-guiding trails could be used to direct the visitor through the site. Interpretive signs, such as shown in Figure 54, placed along these trails could focus on specific elements within the site. At major attraction nodes, such as the Franklin community, other devices such as dioramas and message repeaters could be utilized. On-site observations suggest that river-side primitive camping areas could be located at or near many of these sites.

The river character within the lower segments is an important consideration which should influence the recreation interpretive plan. Soon after the rushing water of the spring melt subsides, the Fortymile becomes a generally placid, peaceful, slow-flowing stream in most reaches. While there are sites of white water activity (these sites are noted in the task force report), it appears from both the raft trip and aerial reconnaissance that there are long stretches of smooth, gently flowing water. An example of this contrast is shown in Figure 55.

There are several reaches of the River which parallel the Taylor Highway. Along these reaches, the Highway is clearly visible and the noise of vehicles, particularly large trucks, is very audible. Highway construction scars, such as shown in Figure 56, are easily seen by river travelers. These areas severely impair the visual quality of the river corridor. Steps should be taken to insure that the Highway Department does not allow this construction practice to continue in river corridor visual management zones.

A detailed interpretive plan for that portion of the South Fork from the South Fork bridge to the confluence is found in Appendix B. Each site is detailed and noted on the topographic quadrangle. The same format could easily be applied for the entire recreational portion of the river.

Tanacross Airfield

The air strip and BLM fire suppression unit at Tanacross is a major resource management and transportation unit within the Fortymile Resource Area. The field serves as a dispatch center for fire

HISTORICAL
OR CULTURAL

SCENIC

NATURE

TRAIL SIGN

FIGURE 54. SELF-GUIDING INTERPRETIVE SIGNS FOR RIVER CORRIDOR SITES

self-guiding trails could be used to direct the visitor through the site. Interpretive signs, such as shown in Figure 54, placed along these trails could focus on specific elements within the site. At major attraction nodes, such as the Franklin community, other devices such as dioramas and message repeaters could be utilized. On-site observations suggest that river-side primitive camping areas could be located at or near many of these sites.

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FIGURE 54. SELF-GUIDING INTERPRETIVE SIGNS FOR RIVER CORRIDOR SITES

FIGURE 55. WHITE WATER AND CALM

FIGURE 56. HIGHWAY CONSTRUCTION SCARS VISIBLE FROM RIVER LEVEL

suppression aircraft, reconnaissance aircraft, and passenger air service into the remote towns and villages of the interior.

Historically the airstrip has a unique background. The strip was constructed during World War II for use as a refueling base for lend-lease aircraft being flown to the Soviet Union. The site is on the route of the Haynes-Anchorage pipeline of which a major jet fuel storage and pump station is located just west of Tok. This pipeline transported aviation fuel from Canada to United States air bases in Alaska. Numerous military aircraft have landed and been serviced at the Tanacross field.

In recent years, BLM has taken over the field. The large fire warehouse, helipads, weather station, control tower, and fire retardent mixing and loading facilities are used by BLM for resource protection activities. During the fire season, several large fire retardent bombers, such as shown in Figure 57, are stationed at Tanacross.

The facility is located only a short distance from the Alaskan Highway. A large parking lot is presently located east of the complex of buildings and equipment, as shown in Figure 58.

This site has considerable interpretive potential. Aside from the historic significance of the airfield, the visitor can be introduced to the breadth and complexity of the BLM resource management activities in the resource area. The public use area should be separated from the active service area. A small interpretive diorama utilizing photos, reverse screen slide presentation, and recorded messages could be incorporated into a viewing platform such as shown in Figure 59. The thrust of the message would focus on the military history of the field as well as the range of resource management activities undertaken by BLM. The message system would serve to thoroughly familiarize the visitor with BLM as the land managing agency, as well as stress the concern of the Bureau for a program of wise and prudent land management. Also, the display could give the visitor an appreciation of the equipment, manpower, and cost involved in suppressing wild and man-caused fires in Alaska. The entire interpretive area should be designed so as to keep visitors out of the way of BLM traffic, particularly during times of fire activity, and

FIGURE 57. FIRE SUPPRESSION AIRCRAFT AT TANACROSS AIRFIELD

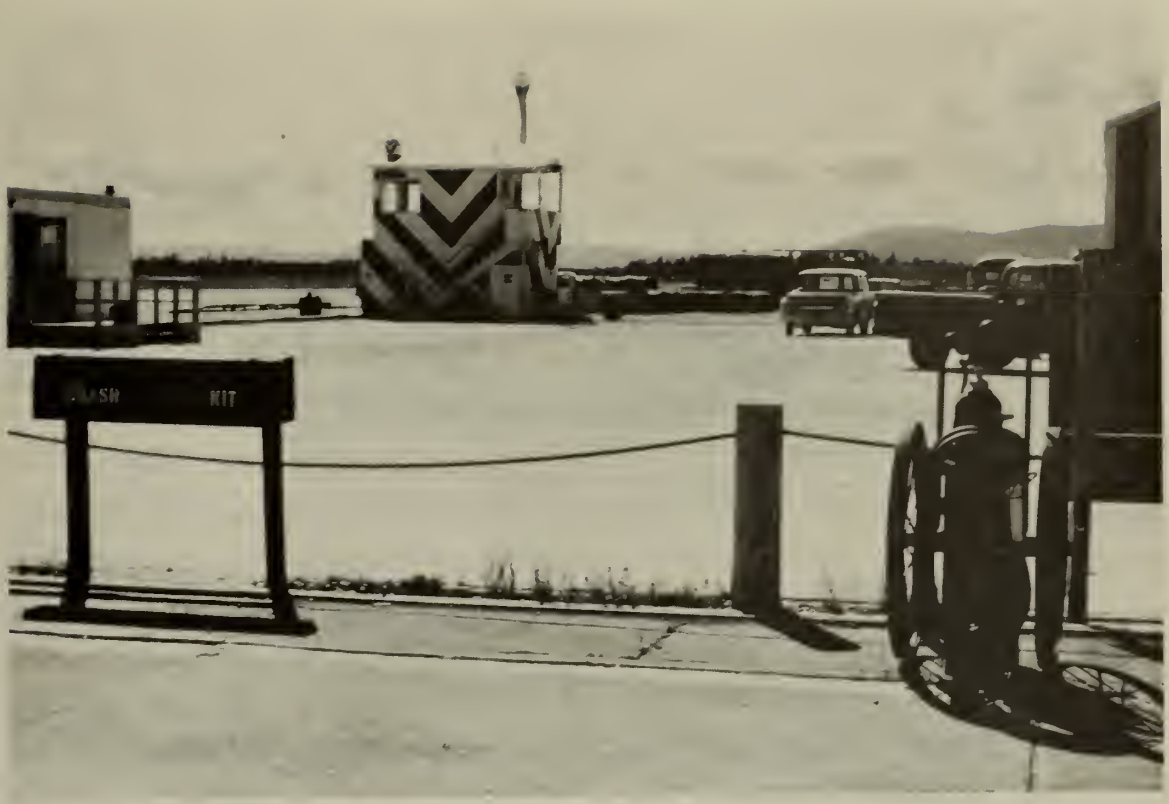


FIGURE 58. PARKING AT TANACROSS AIRFIELD

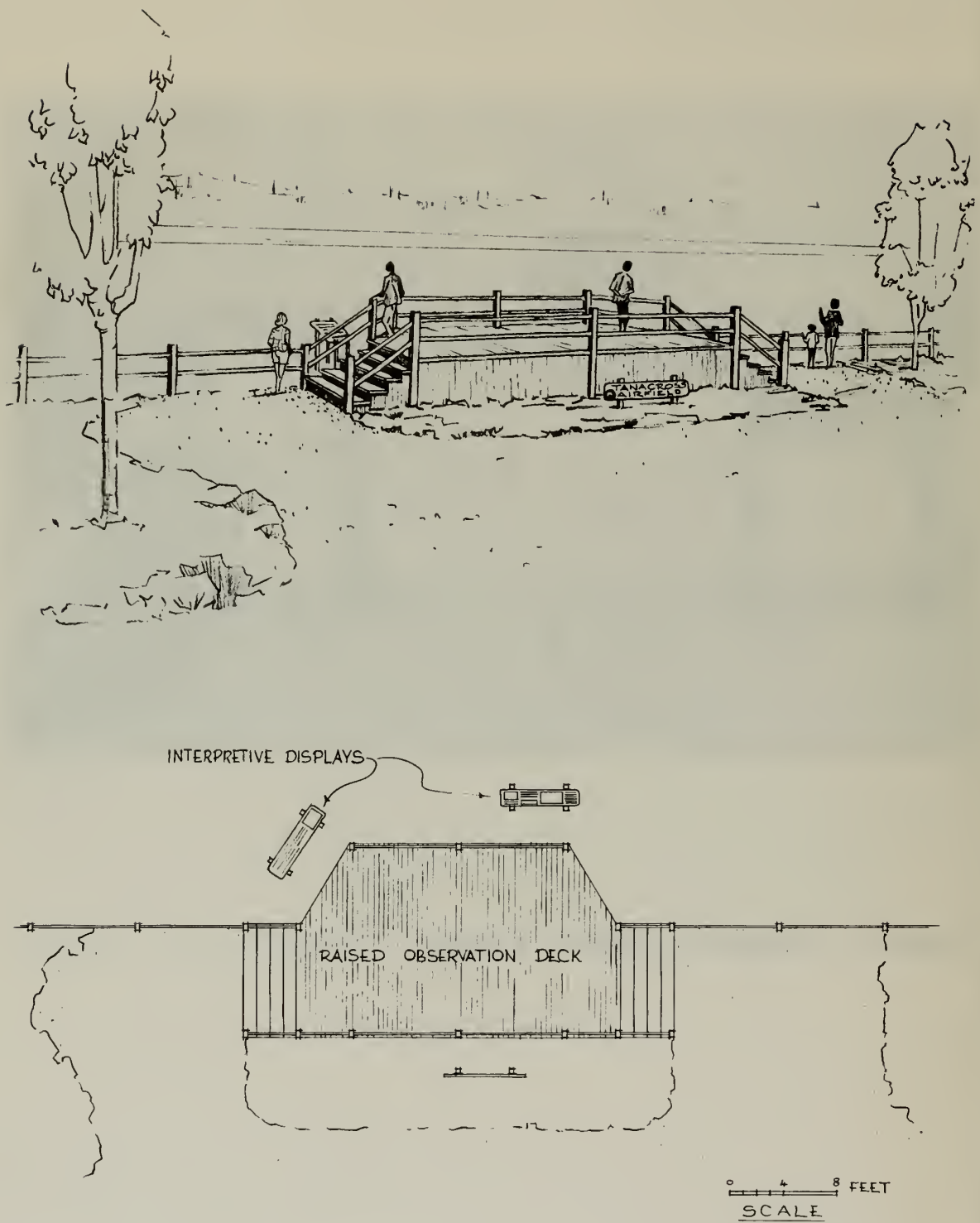


FIGURE 59. PROPOSED INTERPRETIVE FACILITY AT TANACROSS AIRFIELD

distinctly separated from access to the Tanacross Indian village which lies north of the field.

Historic Communities

Chicken Community

The Chicken Community is a group of fifteen to twenty buildings, a dredge, tailing piles, water storage ponds, airstrip with support buildings, post office, fire guard station, and graveyard. The site is located on a high ridge above Chicken Creek. The Taylor Highway runs to the east of town, which is sited at Milepost 66.

Most of the buildings are abandoned but reported to be in relatively good condition. The townsite is in private ownership and not open to the public. Several people still reside in Chicken. Mr. Paul Bytell, an early miner, lives in Chicken and serves as caretaker for the Chicken dredge and overseer of the town.

Chicken is the most important of the abandoned gold mining towns for two reasons. First, the town has been continuously occupied as an active mining site for the past eighty-five years. Second, it exists in a state of good repair on a well-traveled highway. The majority of visitors to the Fortymile Resource Area traveling the Taylor Highway will find Chicken the only historic mining town they are able to visit.

The Chicken Townsite is shown in Figure 60. A site plan for the Chicken Community is shown in Figure 61. The principal buildings have been carefully investigated and described in the historic survey files. Photographs of the buildings have been made by BLM investigators.

The center of activity in Chicken during the peak of activity was the roadhouse, horse barn, general store, and two saloons. Access to Chicken was by winter trail to Eagle which passed through Steele Creek Community. Miners cabins are scattered around the periphery of the town and along the creek where the mining activity took place. A second roadhouse was converted to a school where classes were held until the mid-1930s. Telephone service was first installed in Chicken in 1938 and 1939.

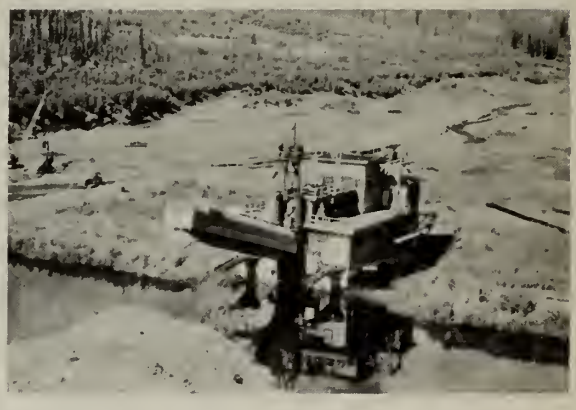


FIGURE 60. CHICKEN TOWNSITE

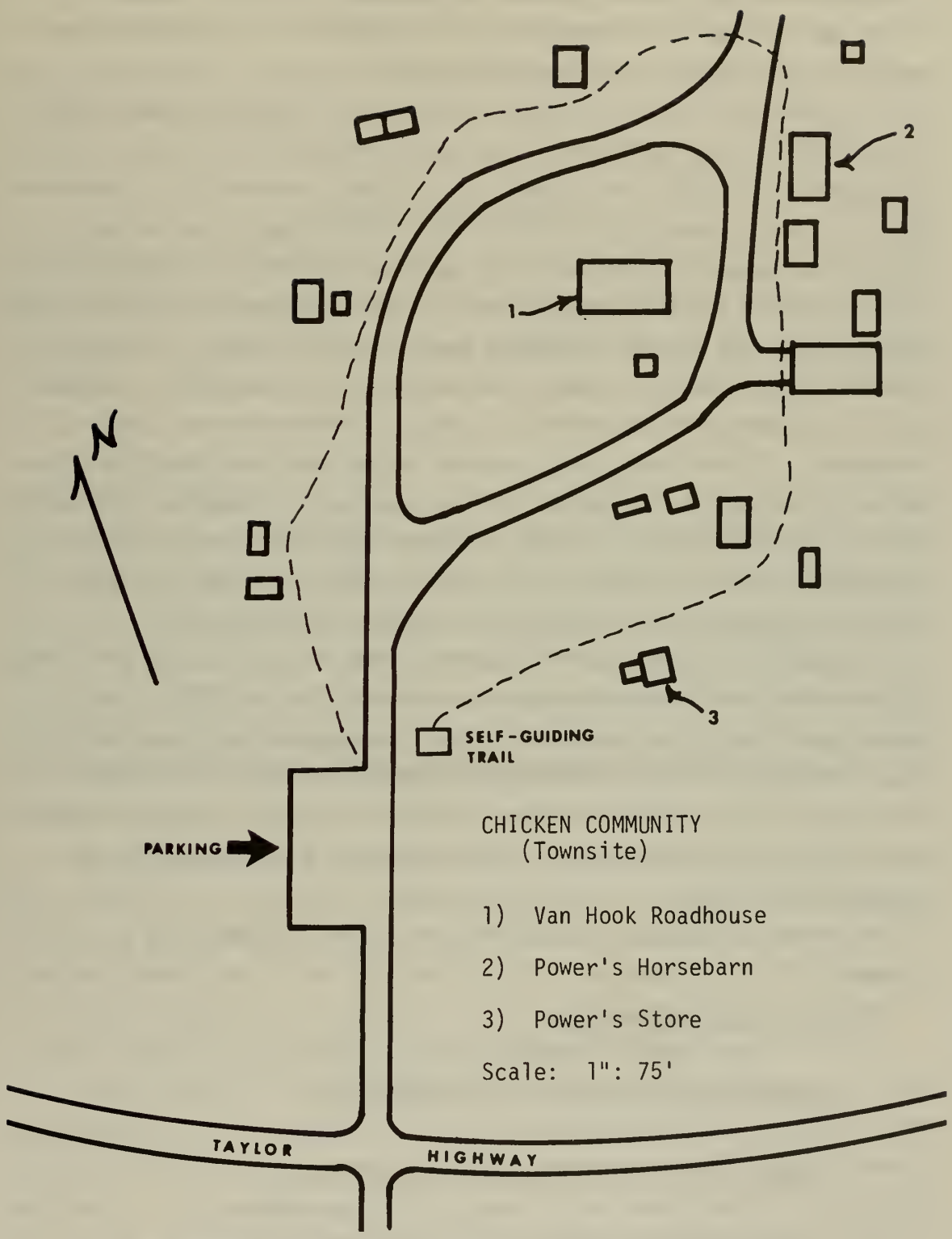


FIGURE 61. SITE PLAN FOR CHICKEN COMMUNITY INTERPRETATION

Written history on the early years of Chicken is scant. Observations and recollections of present day resident old timers appears to be the best and most reliable source of information on the people and town life in Chicken during the early years.

In order to initiate detailed studies in Chicken in preparation for rehabilitation, restoration and interpretation activities, it will be necessary to either secure the site in public ownership or otherwise negotiate an agreement with the present patent holder to allow this activity to commence. The BLM could utilize a variety of legal instruments to insure stabilization of the site while accommodating the needs and wishes of the present residents and/or patent holders in Chicken. It would be advisable to consult the National Park Service or National Trust for Historic Preservation for detailed information on such strategies. A more complete structural survey and condition classification for all of the buildings will be necessary. Based on information supplied by the residents, street patterns can be laid out and any necessary fixtures installed. With the assistance of the past and present residents, selected buildings could be refurnished.

In addition to those activities mentioned in conjunction with the discussion of the Highway Corridor development (pp. 97-123), it will be necessary to provide adequate visitor parking and sanitary facilities. An adjacent picnic area would be desirable somewhere between the parking area and the main townsite. The small wooded area just northwest of the entry road could be investigated as a suitable site for a visitor picnic area.

A scheduling program for activities at Chicken should be as follows:

Stabilization of Ownership

1977

In-depth Condition Class of all Buildings

1979

General Interpretation and Park Facilities

1980

In-depth Interpretive Program for Entire Community

1982

The BLM will have to determine the personnel requirements and funding level for each stage of the program. Of all the historic townsites other than Eagle, this is the most significant and accessible of the towns and should be given top priority for stabilization and interpretation.

Steele Creek Community

The Steele Creek Community is a small cluster of four buildings in a clearing at the confluence of Steele Creek and the North Fork of the Fortymile River. The buildings consist of two cabins, a barn, and roadhouse. Northwest of the community on higher ground is an abandoned airstrip. Examples of the existing buildings at Steele Creek are shown in Figure 62.

Steele Creek was once known as one of the more exciting riverside communities in the Fortymile country. It lies on the overland trail from Eagle to Chicken. This town was a major meeting place for trappers, overland freighters, and miners. Steele Creek was an overnight stop and change of horses on the mail run from Eagle to Chicken.

The building survey indicates that the barn and two cabins are in good shape. The roadhouse is partially caved in. The site is owned Mr. Neil Thurneau who resides in Tok. Mr Thurneau does some summer mining and winter trapping at Steele Creek.

The open setting on the gravel bar at the confluence is a desirable area for a river stop, campground access, and major interpretive center. The BLM should enter into negotiations with Mr. Thurneau concerning future public use of the site while protecting his legitimate mining and trapping activities at the site. Hopefully, his attitude towards recreationists will become more cordial over time.

The activity in Steele Creek centered around the roadhouse. This should be restored and used as a museum and interpretive facility. The cabins and horse barn could be rehabilitated and refurbished as period settings. The paths through the center of the area should be regraded. Mr. Thurneau could no doubt provide valuable information on the early history of Steele Creek.

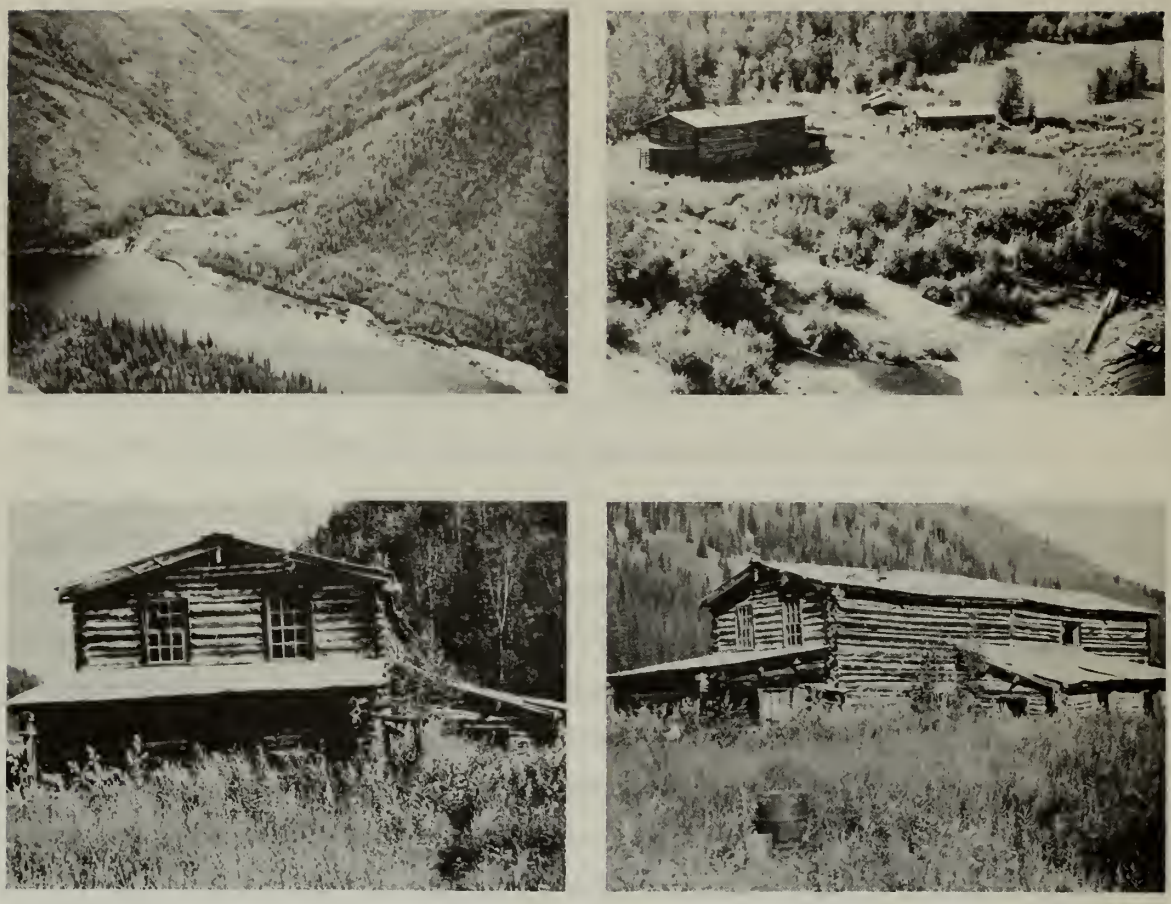


FIGURE 62. STRUCTURES AT STEELE CREEKE

A small campground with water, sanitary facilities, and trash receptacles could be developed near the River. Remnants of the overland trail should be identified and interpreted. A trail up to the airstrip could be used as a short hiking trail. BLM should advise all recreationists of the rights of miners working active claims.

Development of this site should be a high priority activity. Along with Franklin and Moose Creek, this is one of the major community sites on the Fortymile River.

Joseph Community

The community of Joseph was a small group of cabins strung out along Joseph Creek. A few were built near the confluence. An airstrip was constructed near Joseph in the 1920s. The rusted hulk of an abandoned aircraft which crashed on take-off lies in a small clearing at the north end of the runway.

Today the Joseph airstrip is used for access into the upper reach of the South Fork as well as a refueling depot for fire suppression aircraft. There are no overland trails connecting Joseph to other mining communities downstream. No historic buildings are standing in the immediate vicinity.

A small interpretive plaque at the Joseph airstrip would be adequate for the number of visitors who would probably reach Joseph by air. Work at Joseph, with the exception of a thorough investigation of the few cabins up Joseph Creek, should be a low level priority at the present time.

Moose Creek Community

The Moose Creek Community consists of a small cluster of buildings within and to the north of the open pasture near the confluence. This occurs near a wide bend in the river. A large sand bar lies just below the pasture. The Moose Creek site is shown in Figure 63.

Moose Creek was also known as Moose Creek Customs Station. The Eldon airfield located on a high ridge to the south and west of the

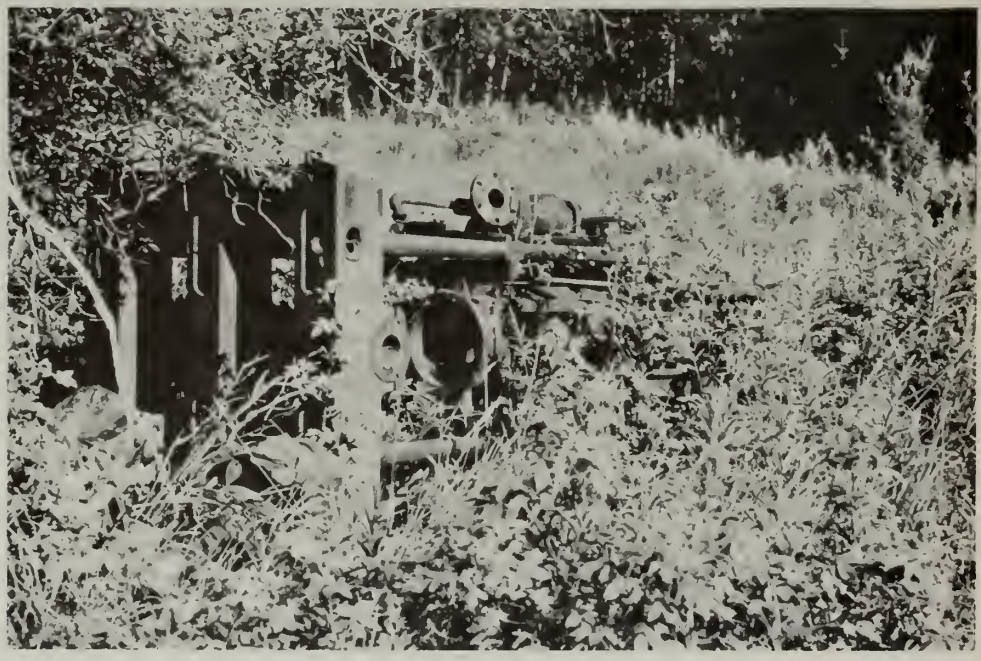


FIGURE 63. MOOSE CREEK SITE

confluence was constructed shortly after the town was developed. The strip is now abandoned. Light aircraft flew mail and supplies in and out of the town.

The last customs officer is reported to have burned the station as a way of bringing attention to his requests to not continue wintering at the site. Today, all that remains at the site are a few foundations and the rusty hulks of abandoned pieces of machinery. The small track tractor should be taken to a museum or site where it could be restored and interpreted. Other part of machinery could be relocated to a museum or interpretive station.

The meadow-like pasture is an inviting camping area for river travelers and many can be expected to overnight there. However, formalized campground development should be delayed until a thorough professional historic inventory and evaluation has been conducted at the site.

Franklin Community

Franklin Community is a small cluster of cabins and a roadhouse located at the mouth of Franklin Creek where it joins the South Fork of the Fortymile. It is reported that the Franklin Gulch area is the first or nearly the first site of gold discovery in interior Alaska, around 1886.

The townsite is a picturesque setting on a small flat just above the confluence. The remaining buildings are shown in Figure 64. Franklin is on the ridge trail from Steele Creek to the South Fork and on to Eagle. The gold at Franklin Creek was easy to mine. An active social life and commerce was reported to have taken place in the little townsite.

Across the river from Franklin are the remains of a blacksmith shop. This shop was used to make and repair equipment used for a drift mining operation, as well as a cable car which transported miners and supplies across the River. The cable still hangs over the river a short distance downstream from the townsite. The blacksmith shop, water pumps, and cable winches for the mining buckets were powered by a steam boiler which is still on the site. Mr. Billy Meldrum, a local

FIGURE 64. STRUCTURES AT FRANKLIN COMMUNITY SITE

resident, has described from personal observation the workings of the steam winch which lifted ore from winter driftholes and piled it up for washing in the spring.

Mining activity was hectic in the Franklin area from 1886 through 1948. Two dredges operated in the adjacent South Fork during the period 1905-1925. A post office operated from 1902 through 1945. By the late 1920s there was a roadhouse, school, horse barn, and several cabins. There are no permanent residents; however, occasionally miners work the site during the summer. These occasional miners have been observed up Franklin Gulch. Considerable vandalism to the cabins and the roadhouse is attributed to current residents.

Numerous artifacts and items of mining equipment have been found scattered throughout the Franklin site. Parts from the blacksmith shop, dredge buckets, sluice boxes, tractor tracks, belt driven water pumps, and numerous tools have been observed.

Field investigations of Franklin have been conducted by BLM personnel from the Fortymile Resource Area. The buildings are in fair condition. Several could be rehabilitated and restored. The investigators observed considerable vandalism to several cabins and their contents. This suggests the need for securement and management action by BLM.

Franklin townsite is the most significant of the gold mining communities in terms of the historic linkage to the actual discovery of gold in interior Alaska by Franklin and Wilson. In addition, most of the gold mining techniques used by the Fortymile miners were employed at one time or another in the Franklin area. Remnants of single bucket and bucketline dredges, a placer operation, a hydraulic operation, and a drift and sluice operation are extant in the gulch. All could be reconstructed and incorporated into living demonstrations of these early-day mining methods. On-site study suggests that the townsite could be easily reconstructed to the conditions existing during the 1920s. File research indicates that local people such as Al and Roberta Stout, William Meldrum, and Bob and Ellis Roberts could be called upon to provide a wealth of information on early day life in Franklin Community.

The interpretive planning for Franklin Community should be given a high priority ranking in the comprehensive cultural resource management program for the Fortymile River. The suggested approach to the protection and development of Franklin as a major interpretive site is similar to that outlined for Chicken. The Franklin roadhouse could be restored and developed as a self-guiding interpretive museum. All devices could be semi-portable so they could be removed at the end of the summer recreation season for maintenance. Selected cabins could be rehabilitated and interpreted. The ridge trail should be identified and interpreted as a major linkage in the early overland trail system throughout the Fortymile Area. A self-guided walking tour could guide visitors through the townsite. On occasions, as resources permit, on-site demonstrations of the early mining methods could be provided by local people. A loop trail around the town and up the creek would bring visitors into contact with several remnant mining sites.

The Franklin site is a major stop on the downstream trip on the South Fork. This would be a desirable site for a small campground and picnic area which would be located across the creek from the structural remnants of the community. This will require the selective thinning, but not clearing, of the existing grove of Balsam Poplars. River users could be encouraged to deposit trash in special receptacles provided at this site. Brochures, visitor experience evaluation cards, and other information could be dispensed at the Franklin site.

IMPLEMENTATION PROGRAM

IMPLEMENTATION PROGRAM

Protection and management of the natural and cultural resources of the Fortymile Resource Area presents a complex policy promulgative as well as administrative problem. Increasing demands for expanded development of facilities for outdoor recreation and tourism will surely generate more pressure on the fragile land resource as well as the cultural and historical resources. Already, the State of Alaska is moving ahead with plans to upgrade the Taylor Highway. Partial justification for this upgrading is the growing volume of recreation traffic on the highway. If and when the Fortymile River becomes a National Wild and Scenic River, it is reasonable to assume that the level of recreational use within the area will increase substantially. The burden of responsibility at this point appears to be exclusively that of the BLM.

Effective resource management and visitor supervision within the area is and will continue to be heavily influenced by the level of funding and availability of field personnel during the three month recreation season. Because visitor access to the area is presently limited to the Taylor Highway; a few short trails off the Highway; air strips at Eagle, Chicken, and Joseph; and river access off the highway at three major crossings, visitor containment at present is much easier than in intensively developed parks where dispersed development and greater road and trail access create severe management problems.

Recreation and cultural resource management priorities for the area should reflect the following considerations:

1. Uniqueness, rareness, and accessible nature of the cultural resources scattered throughout the area
2. Susceptibility of cultural and archaeological artifacts to theft and defacement by unscrupulous visitors and souvenir hunters. This has been occurring within the area in spite of federal protection afforded under the Antiquities Code

3. Protection of the resource base. Stepped up recreation use will increase the potential for man-caused fire, disturbance of wildlife, and erosion of the tundra within the Area
4. Impairment of the visual integrity of the river and highway corridor in those areas where new construction scars could be created as a result of less than adequately planned and supervised widening and upgrading of the Taylor Highway
5. Increased traffic, noise, and litter which follow in the wake of heavy recreational use

There are many other recreational management concerns which require attention. These will be discussed throughout the remainder of this section. The implementation framework for a comprehensive natural and cultural resource management program such as developed in this report should reflect an annual increase in funding to respond to the action framework for those high priority activities.

Priorities for action programs are based on field level observations and discussions with BLM administrative and planning personnel. The program reflects two concerns. First, the kinds of activities which could yield the greatest payoff for the dollar expenditure in terms of visitor awareness of BLM as the resource managing agency and its program of historical, cultural, and recreation resource administration. Second, the program reflects the need to take action to stabilize those areas which were noted to be receiving the greatest negative impact as the result of increasing visitor use.

Each aspect of the proposed interpretive program and resource management plan are discussed in following sections. Because of the dynamic nature of the economy, it is not practical to assign cost figures to specific tasks or actions. This is left for annual and long range budget planning at the area, district, and state level. A suggested work program is as follows:

Suggested Five-Year Work Program

1976 Continue cultural resource inventory
Add landscape architect and/or park planner

	Begin design work for highway entry and interpretive stations
	Plan brochures for river and high interpretation system
	Coordinate development work on Taylor Highway with the Highway Department
1977	Complete cultural resource inventory of major communities
	Plan and install entry stations
	Initiate river recreation impact monitoring system
	Initiate recreation site assessments
	Initiate visitor attitude surveys
	Add interpretive specialist to the Area staff
	Plan and install initial interpretive devices along the Taylor Highway
	Initiate action to secure in fee simple absolute the town sites of Chicken, Franklin, and Steele Creek
	Begin planning for a structured oral history program involving interviews with knowledgeable area residents
1978	Prepare site plans for proposed recreation areas. Develop construction and operation budgets for these facilities
	Prepare plans and budget estimates for a major interpretive unit for Tok
	Prepare program plans for recreation management activities within the river and highway corridor
	Plan seasonal manpower needs for recreation management
	Prepare budget estimates for the rehabilitation and restoration work at Chicken, Franklin, and Steele Creek
	Collect those artifacts from field sites which should be permanently housed and displayed in on-site or a central exhibit complex
	Complete field historical and cultural resource inventory and mapping
1979	Rehabilitate and restore selected cabins along the river corridor
	Construct major river corridor recreation sites

Restore and develop the interpretation for the Wade Dredge
Develop the recommended interpretive device at Tanacross Airfield
Plan for visitor service unit at Eagle
Move ahead with restoration and interpretation at Chicken, Franklin, and Steele Creek
Bring on line river recreation site management personnel--two men for the three summer months

1980
Initiate construction on the major interpretive unit
Complete work at Chicken, Franklin, and Moose Creek
Complete installation of interpretive devices within the river and highway corridor
Complete preparation of all audio, visual, graphic, mechanical, and animated interpretive devices and presentations
Begin first comprehensive review of plan and program accomplishments

Time Frame for the Interpretive Plan

The interpretive plan and recommendations for implementation suggested in this report will require several years effort at increasing annual funding levels to accomplish. Many of the detailed developments will not be required for several years at which time visitation is expected to be high enough to justify the required expenditures.

At present, there are several activities which should be continued and intensified. These are:

a. Cultural resource inventory and historical research
b. Collection of dispersed artifacts, particularly those which are known to be scarce and of high historical value
c. Oral history interviews with knowledgeable residents about major events, sites, and people of the past
d. Continued research on the life styles, social, and economic characteristics of the early residents of the area

These activities should all be on-going simultaneously. The area should have a full time historian-interpreter on the staff to conduct this work.

Preparation and installation of interpretive stations in the field could be completed by the suggested target dates.

Immediate

1980

1. Alaska Highway initial welcome and interpretive stations
2. Interpretive devices installed at major features along Taylor Highway and within the most heavily used portion of the river
3. Stabilization of ownership of those important historic sites not under public management
4. Temporary signing of key sites to inform visitors of the BLM program to protect, interpret, and manage for present and future use
5. Identification of those cabins and other minor sites where extensive rehabilitation and protection work is justifiable
6. Initiate the development of more comprehensive field brochures and related literature

Second Phase

1981

1. Rehabilitation and restoration of the historic towns of Chicken, Franklin, and Steele Creek
2. Detailed interpretation of these sites
3. Completion of the rehabilitation and interpretation of Eagle and Fort Egbert
4. Initiate stabilization and interpretation of cabins and minor sites

Third Phase

1983

1. Completely restore selected cabins along the river
2. Incorporate living history programs for the summer months at places such as Fort Egbert, Eagle, Franklin, and Chicken

3. Complete an area museum and interpretive center with extensive exhibits. Many of the artifacts removed from the field in order to protect them from the elements and vandals could be displayed here
4. Update all self-guided tours, field brochures, and other literature for which the present availability of data is not adequate

Personnel and equipment requirements as well as costs for this phase of the development and management are difficult to determine at this stage of the planning. Unlike the field level management of the recreation resource, development and operation of the interpretive program will involve a large number of people not directly attached to the Area Resource Unit. Planning, preparation, and installation of the more sophisticated interpretive devices could be assigned to either a large specialized BLM service unit or sub-contracted to the National Park Service. Much of the detailed research will involve the use of other specialists, many of whom could be working under contract.

During the next three years, the interpretive staff within the recreation management section of the Area office should consist of:

* Two historians
* Two interpretive specialists (one to be stationed at Eagle during the summer months)
* One graphic specialist

Recreation Areas and Facilities

Recreation area and facility development should proceed on a schedule similar to that proposed for development of the interpretive facilities. The time and budget frame of reference should reflect the increased level of visitation. Should the Fortymile River receive national designation, this visitation would no doubt increase considerably.

There are no reliable figures on current recreation use within the area nor are there any statistically based projections of future visitation. On-site observations during June and July led to the

conclusion that present visitation is light but growing. Since quality wild river floating and canoeing is limited to early spring, the numbers engaged in this activity will be considerably less than the general visitation which would include driving the Taylor Highway, camping, and enjoying the historic sites.

At present there are no specifically developed river ingress and egress points. Also there are no designated camping areas along the river. River users now camp on high ground, at a cabin site or townsite, or on a sandbar. There is no interpretation along the river route. Users are expected to carry their trash out.

There are several developed BLM campgrounds along the Taylor Highway. These areas have designated campsites, water and toilet facilities, and trash receptacles. Some are located along or near the river and provide a pleasant setting for camping, fishing, and recreational gold mining. The existing BLM campground and picnic site located off the Alaskan Highway is similarly situated. In addition, the Alaska State Parks administers several parks along the Alaskan and Glen Highways. The Highway Department provides roadside turnouts and picnic areas. These are more heavily used because of their location adjacent to paved roads.

Hiking trails are limited. There is one trail up Mount Fairplay which was laid out several years ago, another in the high country north of the road to Boundary, and a short trail off the highway overlooking the river. Hiking trails should be developed on higher ground in order to provide any kind of scenic vistas. Also it is extremely difficult as well as uncomfortable to hike across the wet, mosquito infested muskeg. More trails could be developed on the higher areas. Short, self-guided loop trails have been recommended for clusters of natural or cultural resources found along the river and roadside turnouts.

The interpretive plan for the river emphasized the need to provide information and public contact units at the designated river entry and exit points. These points could become major park areas, particularly if a concessionaire were to operate out of one to provide rental rafts and canoes.

Within the next wo years, BLM should consider the development of

a visitor service center at Eagle. This would include a sanitary dump station and campground for larger trailers and recreation vehicles. Over time there will be more people taking a full day or longer to tour Eagle and Fort Egbert.

A more intensified cooperative program between BLM and the Alaska Highway Department should be a policy objective. Already there have been numerous opportunities to incorporate the development of recreational sites and scenic turnouts as well as the protection of visual integrity as part of the Highway Department plan for the upgrading of the Taylor Highway. BLM should have highly experienced personnel capable of preparing construction site plans for incorporation in the highway engineering plans. Field construction supervision by experienced personnel is also essential.

Recreation Management Programming

Programming the expansion of existing recreation areas and the development of new sites will be strongly influenced by the ultimate action of Congress on the Wild and Scenic River classification of the Fortymile. For the next three fiscal years, major funding should be sought for the river ingress and egress sites at appropriate highway crossings as well as the development of camping facilities along the River. A seasonal six man recreation crew should be planned for operation by 1977. This crew would be responsible for maintenance, repair, and minor development work. They could be augmented by the fire crews who now constitute the bulk of manpower used for recreation management activities. Two men plus vehicles should be stationed at Tok, Chicken Guard, and Eagle Guard. The recreation staff section of the Area office would coordinate this work with other activities.

A high level of cooperation between all elements of the Resource Area office was observed by the investigators. This is highly commendable and should continue. Many of the historical and cultural resource inventory and mapping tasks, river reconnaissance activities, and visitor monitoring tasks will require the use of aircraft on assignment to the fire suppression unit. Close coordination of all field

activities can greatly enhance the work of cultural resource data collection and mapping.

There have been numerous references throughout the text to the rehabilitation and restoration of historic sites, buildings, and items of mining equipment. The on-going rehabilitation and restoration work at Fort Egbert is the kind of activity which should eventually take place at the historic town and gold mining activity sites. Prior to any such work, it will be necessary to stabilize all patent and/or claim land containing important historic sites. This will involve either negotiated sale, with life tenancy in some cases, or eminent domain action.

Once in public ownership, a careful architectural and structural study of the buildings will be necessary. At sites such as Franklin, for example, careless, thoughtless people have already done considerable damage to many of the buildings. It will require a great deal of careful work to rehabilitate and restore these structures. The same holds true for sites such as Joseph, Moose Creek, Steele Creek, and the Wade Dredge. The town of Chicken, because it has experienced continuous occupation for nearly eighty years, is in much better shape than all the other sites. Also, as has been previously pointed out, Chicken will no doubt be visited by the majority of tourists traveling through the Fortymile Area.

Within the next three fiscal years, a high priority action program should be an assessment of the actions and costs involved in securing these sites in public ownership. Action should be taken to evict all non-local and illegal residents of the historic communities and to initiate stern measures against any persons caught defacing the property. Site analysis and work planning should begin in the third or fourth year.

There are numerous related work program activities that can be undertaken to accomplish the recommendations in the plan. These can be grouped into several categories:

a. Increased coordination with state agencies, particularly the Highway Department and State Parks, in the development of more detailed recreation plans for the Area

b. Continuation on a more intensive level of the use of fire suppression personnel for recreation management and related activities when this does not conflict with primary responsibilities
c. Work towards the assignment of a permanent recreation planning staff person in the Fortymile Area Office
d. Prepare and disseminate through existing visitor contact stations more printed material on the resources of the area with continual reinforcement of the underlying theme of non-contact visitor management
e. Strive to cultivate and enhance trustful working relations with all of the long time residents within the area. Since there is little written history of the area, the readily available memories of these people on a short notice basis is essential in the collection of information to be used in the preparation of interpretive materials

Monitoring Recreation Impact

As the recreation resource management program expands to embrace more sites and diversified activities, and as visitation increases, it will be useful to the BLM to incorporate a recreation use monitoring system into the Fortymile resource program. A recreation use monitoring system can be developed to assemble the following categories of information:

a. Annual visitation counts and distribution of visitors throughout the area
b. Participation figures for various outdoor recreation activities
c. Socio-economic profiles and geographic origin of visitors
d. Visitor evaluation of the various areas and facilities
e. Measures of visitor perception and retention of behavioral orientation and interpretive information
f. Evaluation of the effectiveness of various interpretive devices and communication media

g. Physical impact on the site or rate of site deterioration resulting from existing levels of use
h. Level of defacement of buildings and theft of artifacts
i. Amounts of debris left behind by visitors failing to use the proper litter disposal procedures and facilities
j. Levels of noise resulting from motor vehicles and other power equipment

This kind of empirical data can be gathered through use of several recreation use monitoring procedures. These include:

a. Observation -- trained observation of key impact indicators by field personnel
b. Voluntary visitor registration and reporting
c. Field interviews on a scheduled or unscheduled basis
d. Visitor trip logs
e. Hidden or visible automatic photographic recording devices
f. Follow-up questionnaires using addresses obtained from license plate registrations
g. Traffic counters at appropriate locations
h. Pre-season and post-season photographic inventories of recreation sites

Those voluntary devices would require fewest personnel to administer. The data could be tabulated and analyzed during the off season when all outside activity comes to a halt.

The results of those monitoring devices can assist the resource planners and managers in determining some very important information which is necessary for future planning, budgeting, and management policy formulation. Major categories of information derived from the monitoring activities are:

a. Carrying capacity:
   Natural -- rate of site deterioration and recovery at varying levels of use
   Psychological -- visitor perceptions and assessment of the quality of their recreational experience. This is a function of density levels and spatial distribution of

visitors, and impacts such as noise, impairment of visual quality, litter, and defacement

b. Visitor knowledge of the managing agency and its mission
c. Capability of existing personnel to maintain the area in satisfactory condition
d. Visitor behavioral response to the behavioral modification elements of the communication system
e. Visitor satisfaction and appreciation of the interpretive efforts
f. Visitor preferences for additional developed areas, facilities, or modifications of management policies

The concept of carrying capacity has been an intensively debated concept in resource management over the past decade. In spite of the conceptual problems encountered with attempts to use carrying capacity as a practical management tool, there are, however, some useful aspects of the concept which are applicable in the context of this discussion.

Recreation managers as a rule strive to optimize user satisfaction within the imposing constraints of the resource base, the budget, and their agency mission and policy. Implicit in this today, of course, is the paradox of resource use and environmental protection. Lime and Stankey have defined carrying capacity as that character of use that can be supported over a specified time by an area at a certain level without causing excessive damage to either the environment or the experience of the visitor. (20) Agency management objectives are perhaps the most factors to be considered in the establishment of a specified level of carrying capacity.

Bury has recognized three aspects of carrying capacity: biological, physical, and cultural or human. (6) Stankey has developed the idea that carrying capacity is primarily a perceptual notion--that is the limits of acceptable change the resource manager and visitor are capable of tolerating. (40) Within these major areas of carrying capacity are included such things as soils, vegetation, crowding, noise, privacy, and aesthetic considerations.

The determination of carrying capacity is a reflection of the management objectives for an area. This is strongly influenced by

the natural characteristics of the site, the quality of recreation experience the manager is shooting for, and the fiscal capability in terms of funds necessary for maintaining the site at a designated level of physical condition. Visitor attitudes reflect their perception of both the physical condition of the site as well as the impact of other recreationists. If the management objectives for an area are clearly understood by the visitor, there is increased likelihood that their expectations in terms of quality of experience will be met in the field.

Carrying capacity can be established through the design of the recreation area. For intensive use area, this can be used to limit density and separate incompatible uses. For less intensive uses in areas with a low tolerance, density controlled access can be achieved by means of a carefully planned circulation system.

There have been many misconceptions of carrying capacity as a workable recreation management tool. Wagar has observed four common mistakes in the understanding of carrying capacity as a recreation resource management concept. These are:

1. That the manager's responsibility is primarily to the resources than to the people.
2. That each acre of an outdoor recreation area has a natural level of durability.
3. That most outdoor recreation areas should be managed for naturalness and uncrowdedness.
4. That outdoor recreation areas would be easier to manage if only their carrying capacity was known. (50)

These misconceptions suggest that perhaps too much emphasis has been placed on empirical indicies of carrying capacity for each site. In the Fortymile, for example, the appropriate tolerance density will be influenced by the length of time it takes for an impacted site to begin showing signs of a level of use heavier than the site should be allowed to absorb. At this point, it becomes an agency management policy to constrain use of a site or shift use to an alternative site. Considerations of time, funds, personnel, and the natural recuperative capacity of the site enter the management policy formulation network. Because of the known fragility of the natural environment within the Fortymile area, certain types of recreation areas will require a great

deal of study to determine which feature or features of the site are most easily impacted upon. Armed with this information, the outdoor recreation planner can determine what design features and management policies could be combined to allow the site to absorb more use with the least amount of site deterioration.

Within the Fortymile Area, a high level of emphasis should focus on the visual implications of overuse. Impregnations are easily made and virtually impossible to mitigate. Visual contrast is immediately apparent in areas where the human presence in the form of more than one person for a relatively short period of time has occurred. Remnants of contemporary culture and values with respect to resource integrity serve to affirm the complexity of the carrying capacity concept. Reed suggests that carrying capacity can serve four useful purposes in outdoor recreation area planning and management:

(1) Physical constraints are identified as the basis for ecological capacity determinations;
(2) Facility design based on these data responds to the prescribed goal of resource protection;
(3) Social capacity considerations can be included as design concept components;
(4) The process of continuing capacity determinations--both physical and social--can be identified and prescribed with appropriate managerial response alternatives studied. (33)

Much of this data should be collected as part of the on-going resource management and policy assessment program within the Area office.

The recreation use monitoring system provides a vehicle for allowing the manager to detect site impact before the cumulative effects become exaggerated such that irreparable damage has been done. Site impact can be measured in terms of biophysical and visual deterioration. Primary indications can be obtained through routine visual reconnaissance conducted by the manager. Frissell has developed a comprehensive checklist of observable conditions which serve as initial clues or early warning signs that resource deterioration is beginning to occur. (20) This list and the association management actions which follow should be used to train park (outdoor recreation) rangers who will be involved in impact monitoring and project maintenance. The

capability to spot these indicators is essential if the suggested appropriate resource management actions are to be initiated.

Initial Impacts---(Light Use)

1. Disruption of animal communities disturbed by human presence. Probably minimal and temporary at first.
2. Herbaceous vegetation trampled. Degree of injury dependent on variation in moisture content, plant vigor, size, etc.
3. Some dry organic material removed for firewood.
4. Stones moved to construct fireplace.
5. Charcoal added to fireplace area.
6. Some nutrient addition from human wastes. The natural system will soon cancel most of these changes if use does not reoccur or is not too heavy.

Continued Use

1. Soil compaction becomes significant depending somewhat on soil textures, moisture content, etc. Particularly noticeable immediately surrounding fireplace sites.
2. Soil compaction affects movement of air and water to plant roots.
3. Infiltration of water into soil is reduced. Surface runoff occurs, carrying away organic litter and humus.
4. Mechanical trampling action grinds litter and organic matter, particularly when weather is dry. This ground material is more susceptible to being blown away by wind or washed away by surface runoff.
5. Erosion or removal of surface organic materials exposes mineral soils. This surface is susceptible to rearrangement of soil particles by direct impact of raindrops. This arrangement can produce an increasingly impermeable soil surface ("puddling").
6. Erosion of mineral soil eventually results in exposed tree and shrub roots which are then subjected to drought and direct mechanical injury.
7. Some plant species are killed, particularly in vicinity of fireplace, along trail access, and on tent sites. The adverse pressures of trampling, erosion, soil compaction and root exposure work against more susceptible species and in favor of more durable ones. Thus the species composition begins to shift away from the pre-use community.
8. Mammal and bird communities begin to readjust. Tolerant species (squirrels, sparrows, chickadees) may not be influenced. Some species (skunks, gray jays, chipmunks)

may respond positively and be attracted by man's occupancy sites. Species highly intolerant of disturbance (peregrine falcon) may be displaced.

With Heavy Use

1. Soils throughout campsites become severely compacted. Exceptions occur only immediately adjacent to tree trunks or rocks.
2. Occurrence of soil movement is in evidence. Many trees are now surrounded by a fan of roots exposed on the surface.
3. Ground vegetation now lacking over most of the use area. Remnants, particularly of more durable species . . . persist in sheltered locations.
4. Tree vigor is reduced by soil compaction, root exposure and mechanical injury.
5. Use by large parties has resulted in several new fireplaces. Large sites may have four or five.
6. At this point ecologic change has become readily visible to the untrained eye. Visitors notice that the site is different from its surroundings. It has lost its "greenness." Fewer wild flowers are in evidence. Wood chips, gravel, dust and, perhaps, horse manure, have replaced the green color of grasses, herbs and shrubs. The sites are dusty in dry weather, muddy in wet weather.

According to Frissell (20), these indications can be classified and appropriate remedial action prescribed as follows:

Site Condition Class	Visible Indicators
1	Ground vegetation compressed temporarily, but not seriously injured. Minimal physical change (except simple fireplace).
2	Ground vegetation worn away in immediate vicinity of fireplace.
3	Ground vegetation gone from around fireplace and in other parts of site. Humus and litter still present in most places.
4	Bare mineral soil widespread. Tree roots exposed on surface.
5	Ground cover almost non-existent. Trees dying. Soil erosion occurring.

Condition Class	Management Actions Suitable for Each Site Condition Class
1	No action
2	Still no action warranted. Although site change is evident, it is probably within the acceptable limits. Preventing this degree of change would require limiting use to a very low level.
3	These sites are beginning to show considerable change. In most cases, this change is probably reversible if the site is rested periodically. These sites should be carefully watched.
4	Some of these sites may still be able to recover is subjected to prolonged rest. Should consider immediately withdrawing these sites from use before further permanent change occurs.
5	These are drastically changed sites. Immediate closure is warranted. Natural recovery will be slow. Artificial rehabilitation may be desirable.

For finite capacity data, specific studies may be desirable to determine localized soil, vegetation, water, and topographic relationships. This can be accomplished through the use of test plots, designed to sample typical resource/use impacts and the effect of ecological processes. Detailed analysis of each environmental performance datum can also be correlated to capacity to define the quantitative effects of extended use and indicate appropriate use-deterioration thresholds.

Maintenance

The ability of the existing resource and facilities to withstand use should also be considered relative to the maintenance of facilities or prevention of deterioration provided as a management function. It is an integral aspect of carrying capacity.

Recreation site management throughout the Fortymile will require a coordinated effort among the various program units within the Area. A continued use of fire crews for roadside and campground maintenance

is essential. Aerial equipment and river equipment will be needed to service those areas not accessible by road. Foot crews will be needed for trail maintenance. Field observations during the summer of 1975 indicated that the present maintenance program was not adequate to keep up with the amount of litter deposited in some campgrounds and roadside turn-outs. Reed suggests that the conceptual and operational linkage is essential in the development of a responsive and effective outdoor recreation area management system. (33)

> The concept of carrying capacity as a management function presents a multitude of options related in such terms as agency policy, time, personnel, and use levels. A foremost consideration guiding any management decision should be the perpetuation of the principal design theme. With this in mind, a summary of the management decision process is as follows:
>
> A. The resource manager is prepared to respond immediately to changes in:
>
> 1. The total or isolated changes in environmental quality due to acts of nature (natural processes) or the user;
> 2. The level of use;
> 3. The user-articulated preference for the existing level of environmental quality (the resource as a whole).
>
> B. The sampling procedures available to quantify these changes include:
>
> 1. A routine inspection of the site, [using a photographic inventory method] noting potential or existing areas of user-impact or ongoing natural processes altering the baseline level of environmental quality as identified through the original design criteria;
> 2. A specifically designed study utilizing test plots to accurately document the nature and extent of environmental impacts;
> 3. Controlled access. . . visitor registration [and highway traffic counts] providing daily records of destination within the project, principal activities, length of stay, and areas of interest;
> 4. User-attitude studies utilized to determine the ability of the facility to respond to the desired recreational experience.
>
> [5. A photographic inventory of the site over time.]
>
> C. The manager's response alternatives are programmed to answer each of the above indications by such options as:
>
> 1. Increase maintenance

a. Harden high impact areas through structural support including trail surfacing, soils and vegetation retention, and supplemental drainage structures;
b. More frequent litter removal and toilet facility servicing;

2. Open alternate camp areas and/or trails; close deteriorated areas; rotate to allow rejuvenation.
3. Limit use or types of use
   a. Close high impact areas--certain trail spurs, and camps--and defer use to more hardy sites;
   b. Impose use restrictions--length of stay, campfires, access by water, etc.;
   c. Limit total amount of visitors per day by restricting access, utilizing reservation system, etc.
4. Expand facilities in areas designated as reserve or overflow sites;
5. Re-examine resource allocation policies in light of changing visitor values and articulated needs.

Utilizing this decision [making] framework, future studies can be designed to expand the concept, linking potential impact levels or sampling results to specific management options. (33)

Assessing Program Effectiveness

The resource monitoring data is a very important aspect of the on-going planning and management process. A program of some nature should be undertaken within the next year to begin to assemble visitation data to be used to help justify program and budget requests.

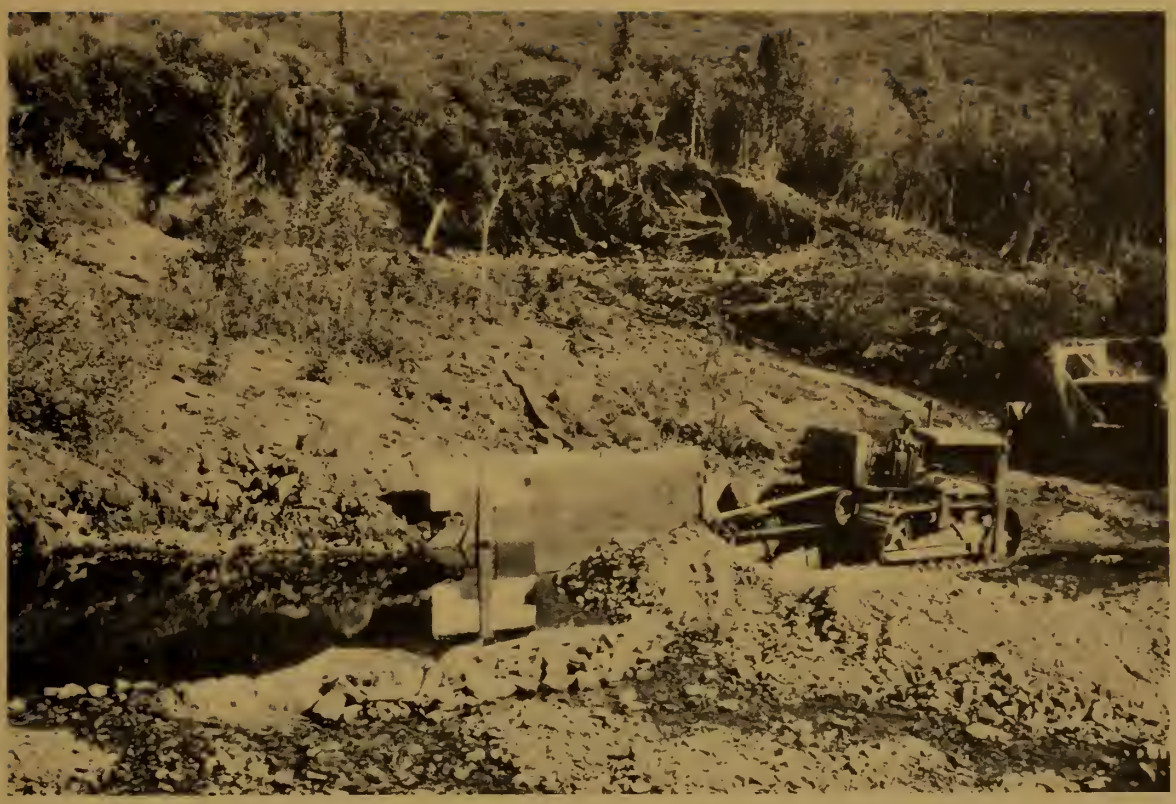
The last step in the planning process if the plan-effectiveness-feedback-loop. In short this simply means a periodic measure of the success of the implementation program in accomplishing specific planning objectives for which a certain amount of funds have been expended.

The test of a successful plan is the tangible accomplishments over the assigned time frame. There are some basic measures which can be applied in this instance:

a. Number of personnel added over time
b. Annual budget requests and actual appropriations
c. Significant additions to the cultural and historical resource data bank

d. Tangible and workable agreements and policies with other key agencies
e. Level of protection afforded to the natural resources and important historic elements
f. Number of new facilities constructed and operational
g. Character of user response to facilities and programs

The annual review of accomplishments for the budgeted funds as well as cooperation activities should be stacked up against the annual program objectives. Variances from an acceptable level of progress, given all modifying circumstances, should be immediately apparent. Administrative corrective action including readjustment of program planning based on existing and probable funding levels can then be applied to remedy the situation. The best measure of success is the highest level of accountability and accomplishment for the amount of time and funds budgeted to the project.



APPENDICES

APPENDIX A

SUGGESTED DEVELOPMENT FOR THE TAYLOR HIGHWAY CORRIDOR

Chapter 4 presented a comprehensive discussion of the interpretive guidelines for the highway corridors within the Forty-mile Resource Area. The majority of the field effort was spent along the Taylor Highway corridor including both spurs to Eagle and Boundary.

Field notes gathered during reconnaissance drives along the Highway were augmented by low-level oblique aerial photos taken with hand-held cameras during flights up and down the Taylor Highway corridor; by professional high altitude aerial photography; by the two volume Guide to the Taylor Highway prepared in 1974 by Marion Weiler; and by the geological survey bulletin, Geology Along the Taylor Highway, Alaska by Foster and Keith printed in 1969.

The sites indicated on the accompanying pocket map have been selected on the basis of their historic, cultural, natural or scenic interest; their physical suitability for development; and their frequency along the Highway in accordance with the provision of rest areas to combat driver fatigue.

As described in the body of this report and in the Weiler guide, the Taylor Highway corridor is dotted with numerous gravel extraction sites which often greatly diminish the recreational and visual experiences in their vacinity. Very few of these sites exist which are not listed in the Weiler guide. Only those gravel pits with specific development potentials based on the above criteria are indicated in these recommendations. The researchers were not a party to the discussions between the BLM and the State of Alaska Highway Department which have been held to consolidate the necessary gravel extraction activity into a minimal number of visually obscure sites. It is strongly recommended that all other sites not used for continuing road maintenance or for interpretive area development should be rehabilitated and/or visually screened from the roadway by the methods developed in the existing technical guidelines

prepared by the Alaska Department of Highways, University of Alaska and Aleyska Pipeline Services Company.

The map for Appendix A is found in the pocket at the inside back cover of this report. Locations were measured from existing mileposts whether they reflected the true mileage or not, similar to the policy used in the Weiler guide. Each milepost has been shown on the map. However, in several cases no milepost marker exists at that location and the spot has been estimated on the map. An arrow on the map refers to the location of a point of interest. The location is as near as could be judged and is a fairly accurate geographic location. The location of a site is given as either east (E) or west (W) of the road, and refers to the absolute side in relation to the whole Highway. This is also similar to the practice employed in the Weiler guide to facilitate correlation between this study and that guide. In some locations a reference to the east side may actually be on the west side due to the Highway turning back on itself. Heading towards Eagle, east would be on the right side and west would be the left side of the Highway.

Abbreviations used in this appendix are:

N	north	MP	milepost	!	welcome display
S	south	BR	bridge	GA	general, area-wide interpretive area
E	east	CK	creek	THA	Taylor Highway interpretive area
W	west	CP	campground	SA	site-specific interpretive area
NE	northeast	GP	gravel pit or surface scar	VC	visitor center
NW	northwest	RD	road	TO	roadside turnout and/or rest area
SE	southeast	TR	trail	RS	roadside interpretive sign
SW	southwest	WX	weather station	PA	picnic area

HW or Highway refers only to the Taylor Highway. All side roads are referred to as road or RD and the Alaska Highway is indicated separately. All mileposts beyond MP 95.6 are indicated as either NS for the north spur toward Eagle or ES for the east spur of the highway toward Boundary and the Canadian border crossing.

MP	Site Description
	RS Alaskan Highway - Directional signs on Alaskan Highway indicating the approach of the Taylor Highway turnoff.
0.0	Beginning of Taylor Highway.
0.0-0.275	RS Sign cluster; directional, informative, boundary delineation. Consolidate signs and unify their format. Cluster those signs which do not refer to specific sites along the road. Begin unified sign graphics and design system. (See Chapter III, Figure 38 , and Chapter IV, Section 1) (E & W)
0.1	TO, SA Old sawmill. Possible site for turnout and interpretive plaque. Check with present owners. (W)
0.5	TO, SA Pipeline Crossing. Interpretive plaque telling a brief history of the pipeline. (E & W)
0.675	Existing right-of-way sign. Remove and replace with new signs at MP 0.5 TO. (E)
2.4	VC Potential visitor center site, if a Taylor Highway location is to be used. (E)
2.5	THA Tetlin Indian Reservation Boundary. The large gravel pit is a desirable site for the major highway information and interpretation station. See Figure 33. Interpretive devices and messages should incorporate those key elements of the Tetlin Indian Culture and the Taylor Highway route.(E)
6.0	TO, PA BLM Day use picnic area. Sign area with behavioral modification graphics. A small cluster sign could be used at this turnout identifying upcoming features. (E)
6.1	RS Porcupine Creek. (E & W)
6.67	RS Cabins along highway. Roadside sign to advise of view. Refer to cultural resources inventory for historical importance relative to interpretive treatment. (E)
6.9	SA One of the better managed gravel pits in terms of operational characteristics which minimize impairment of visual values. This could be interpreted as an example of positive resource management, i.e. the utilization of gravel for highway maintenance. Note typical geology of area. (W)
9.35	RS Game Management Unit Sign. The Taylor Highway interpretive area (MP 2.5) should fully inform the visitor of the nature of the resource management program. Existing sign is not readable from a moving vehicle and is totally inadequate for interpretive purposes. It should be replaced. (E)

MP	Site Description
11.5	RS Sign should advise northbound travelers of upcoming Mt. Fairplay views. Spectacular scenic vistas of Mount Fairplay next 20 miles. (E)
12.5-14.6	TO, SA A pullout could be developed on the east side of the Highway between MP 13.5 and 14.4. Interpretive device should be a plaque diorama. (E)
19.7-21.3	TO Scenic Vista for southbound travel. (W)
22.5-24.5	Confirm future GP use in this area with Highway Department. TO could be developed in one of several GP's in this vacinity with view to S and SW. (W)
25.0	TO Scenic vista. (E)
30-33	TO, SA, TR From MP 30 through MP 33, the highway alignment provides numerous opportunities to view Mount Fairplay traveling north and the Alaska Range traveling south. In the planning for upgrading the Taylor Highway corridor, sites for southbound and northbound turnouts large enough to accommodate several vehicles and having interpretive dioramas should be provided. Also a tundra interpretive trail up Mount Fairplay should head at an eastern pullout. (c. MP 30.5-32.5) (E & W)
32-35	RS Confirm location of highest road elevation with Highway Department and indicate with sign. (E & W)
33.1	Augment revegetation of "cat" trail on mountainside. (E)
34.5	TO, WX, SA Interpret weather station activity, particularly importance of fire weather information. (E)
34.65	TO, SA, TR Good potential visit access to WX via TR and excellent vistas to south and west. (E)
35	As the more complete interpretive sites at the entry points to the Taylor Highway are developed, and as turnouts closer to Mount Fairplay are provided, it will be no longer necessary to utilize this station for this purpose. (E)
35.4	TO Scenic vista for southbound travel. RS advise of slow and turning traffic ahead. (W)
40.1	Remove abandoned car. (E)
42.275	TO, SA Firebreak crosses Taylor Highway. A turnout and interpretive sign explaining the function of this firebreak in the comprehensive fire prevention and suppression plan should be located at this site. Refer visitors to TO at MP 51.25. (E & W)

MP	Site Description
43.0	TO, SA, PA Logging Cabin Creek. Picnic area and interpretive sign telling of history of early mining activity on Logging Cabin Creek. Warn approaching traffic of slow and turning vehicles. (W)
46.0	TO Scenic vista for northbound traffic. (E)
48.9	CP Existing CP West Fork camp. (W)
49.1	TO, SA, RS West Fork Crossing. Interpretive sign at turnout to tell the history of mining on the West Fork. Roadside signs at bridge. River information. (E & W)
50.0-60.0	TO's, SA's In the stretch from MP 50 to MP 60, desirable sites need to be selected to interpret the Chicken burn. Data from the fire records and post fire studies could be used to develop the message and related exhibits. (E & W)
50.3	RS Taylor Creek. (E & W)
50.35	CP Campsite. Improve or direct all visitors to MP 48.9 and eliminate this site. (E)
51.25	RS Remove sign or redesign. (E)
51.25	TO, SA Interpret fire line W. (E & W)
53.85-55.0	TO, RS Provide TO on W at vista to south. Advise southbound traffic of Mount Fairplay views next 20 miles. (W)
56.9	GP, CP Screen or otherwise discourage visitor access to road to abandoned camp until and unless renovated. (E)
63.0-63.75	TO, SA A major interpretive area with a vista should be developed on the east side of the road for northbound travelers. This should introduce the visitor to the development in the vicinity of Chicken. This area should be designed in conjunction with any rerouting of the Highway in this area. (c. MP 63.65 GP?)
64.2	TO, SA, PA Mosquito Fork Crossing. Interpret mining history on Mosquito Fork. Existing PA. (E)
64.3	TO, SA Same information as above for southbound travelers. (W)
66.0	TO, RS Directional information about the Chicken vicinity. Roadside sign should advise of major interpretive area at Chicken PO; left turn ahead. (E)
66.25	TO, SA Major interpretive area for history of Chicken. (See Figures 60 and 61, pp. 164 and 165) (W)

MP	Site Description
66.4	RS Airstrip Road to E., dredge site to W. Signs for both northbound and southbound traffic. (E & W)
66.4	TO, SA Major interpretive area for history of mining at dredge site if development is agreeable with present owners. (W)
66.9	TO, SA Views of Chicken Creek mining activity and dredge. Locational information for other major interpretive areas in the vacinity. Access to Chicken Creek. (E & W)
67.0-73.0	RS Warn of upcoming hairpin turns in area. Be sure each is well marked. (E & W)
67.0-67.1	TO, SA View of Chicken Creek, Chicken townsite and dredge. Advise of other interpretive area locations in vacinity. (W)
67.2	RS Advise of upcoming TO to the left. (W)
68.0	RS Entrance to BLM Fireguard Station. (W)
68.0	TO, SA Interpretation of Fireguard Station activities and general information about Chicken vacinity. (W)
69.05-69.2	TO, SA Vista overlooking Lost Chicken Creek. Interpretation of Lost Chicken mining activity. Selective clearing of Balsam Poplar may be necessary on hillside, but not clearcutting. (E)
69.5-70.0	RS Advise southbound traffic of upcoming interpretive sites in Chicken vacinity; first information area on right, one mile (MP 68.0 at Fireguard Station site). (W)
74.3	TO, SA Interpret gold sluce if agreeable with present owner of claim. (E)
74.5	TO, SA, RS Highway Department Information area if desired. If not wanted, signs should advise of nearest tourist information areas. (at MP 68.0 and MP 75.3?) (W)
74.8	RS Advise of slow and turning traffic at upcoming river landing and picnic area. (E)
75.0-75.5	RS, TO, PA, SA Sign all side roads to picnic area and river landing clearly. Interpret river activity. Current information on river character should be available at all times. Registration log for river travelers. Site of major river entry for recreationists flying or driving into Chicken. (E & W)
75.5	RS Advise of slow and turning traffic at upcoming river landing and picnic area. (W)

MP	Site Description
76.8	TO Vista over river valley at lakes. (W)
81.25	GP Revegetate and/or screen from road and from Walker Fork Campground. (See photo 359 in Weiler guide). (E)
81.85	RS Advise northbound travelers of slow and turning traffic at upcoming visitor facilities. (E)
82.0	CP Existing campground. Signs should eventually conform to the formats used in the rest of the Forty-mile Area but this has low initial priority. (E & W)
82.1	TO, SA Interpretive display to inform northbound travelers about the intensive mining activity on the Walker Fork. The Highway parallels the river for several miles providing the traveler with an excellent opportunity to view the spoil material and site disturbance associated with this intensity of mining. Also, the message should prepare the visitor for the interpretive stop at the Wade Dredge. (E)
82.3	RS Advise northbound travelers of slow and turning traffic at upcoming visitor facilities. (W)
82.8-84.35	TO, SA, TR Wade Camp Site. Collection of cabins and old mining equipment. A turnout should be developed at this site to inform visitors of the old mine sites on the river a short distance down the road. Development of these features is of secondary priority compared to the dredge site at MP 85.95. An interpretive trail linking these features should eventually be developed if an agreement can be arrived at with the present claim holder. No visitors should be permitted, much less encouraged in this area without such an agreement. (E)
85.9-86.0	TO, SA, TR (PA) Jack Wade Dredge. See Chapter IV and Figures 46-50 for interpretive plan. Development should be phased to provide immediate interpretation while working towards the eventual development of a major visitor facility with interpretive trail and adjacent picnic area (E & W of present road alignment. W of proposed alignment discussed in Chapter IV).
87.6	Site of the old boiler which was removed from the Wade Dredge when it was converted to diesel power in 1941. Salvage and move to interpretive area proposed for development near dredge.
88.8-90.25	Jack Wade Vacinity. It would be most interesting for tourists if an arrangement can be made with the present claim holder to develop an interpretive program on gold mining techniques, past and present, in this area.

MP	Site Description
89.9	TO, SA Jack Wade site. Collection of old cabins and mining equipment. Mr. George Robinson, a pioneer miner who came to the Fortymile in 1929 and who once worked on the Mulvain (Jack Wade) Dredge lines actively mines at this site. Visitors should not be encouraged to venture into the camp unless expressly invited by Mr. Robinson. A turnout and interpretive display at road side should avoid disrupting Mr. Robinson's mining activity. (W)
90.1	TO, SA Abandoned airstrip just north of Jack Wade. It is believed that parts for the Wade Dredge were flown into this strip when the dredge was moved to the Walker Fork. (E)
95.5	TO, SA, RS Approach to Dawson Cutoff. Interpretive device should inform travelers of the points of interest on the road to Eagle as well as the road to Boundary and on into the Yukon Territory. (See Chapter IV for a thorough discussion of suggested guidelines for planning and developing the highway entry interpretive stations). Roadside sign should clarify directional information for travelers not stopping at TO. (E)
95.6	Beginning of triangular Highway Intersection.
95.63	Existing decrepit roadside sign - remove.
95.7 ES	Beginning of East Spur toward Canadian border. MP distances are odometer estimates but should be accurate within 0.25 mile. Wieler guide does not indicate mileposts. (E)
96.0 ES	RS Install road sign clearly indicating distances to sites and services north and south of approaching intersection for westbound traffic. (N)
96.6 ES	TO, SA Existing highway information sign at the first roadside turnout on the east spur. The existing sign should be removed. The site should be developed as an information station for travelers heading through the Boundary Customs Station and on to Dawson. (S)
98.4 ES	GP, Visual intrusion; screen and/or revegetate front edge if this GP must remain in active use. (N)
99.8 ES	TO, TR Rock outcrops. Potential trail with scenic views but limited space for safe roadside parking. TO's would probably have to be near MP 99.6 ES and/or 100.05 ES. Potentials are better between MP 101.7 and 104.0 ES. (N)
99.8 ES	RD Trail to gold mining in valley to the south. Recent use by motor cyclists. Access is obscure from Highway. Trailers were parked off of the roadway during the summer of 1975. The legal status of the residents should be verified. Tourists should be advised of the legal rights of miners in the region. (S)

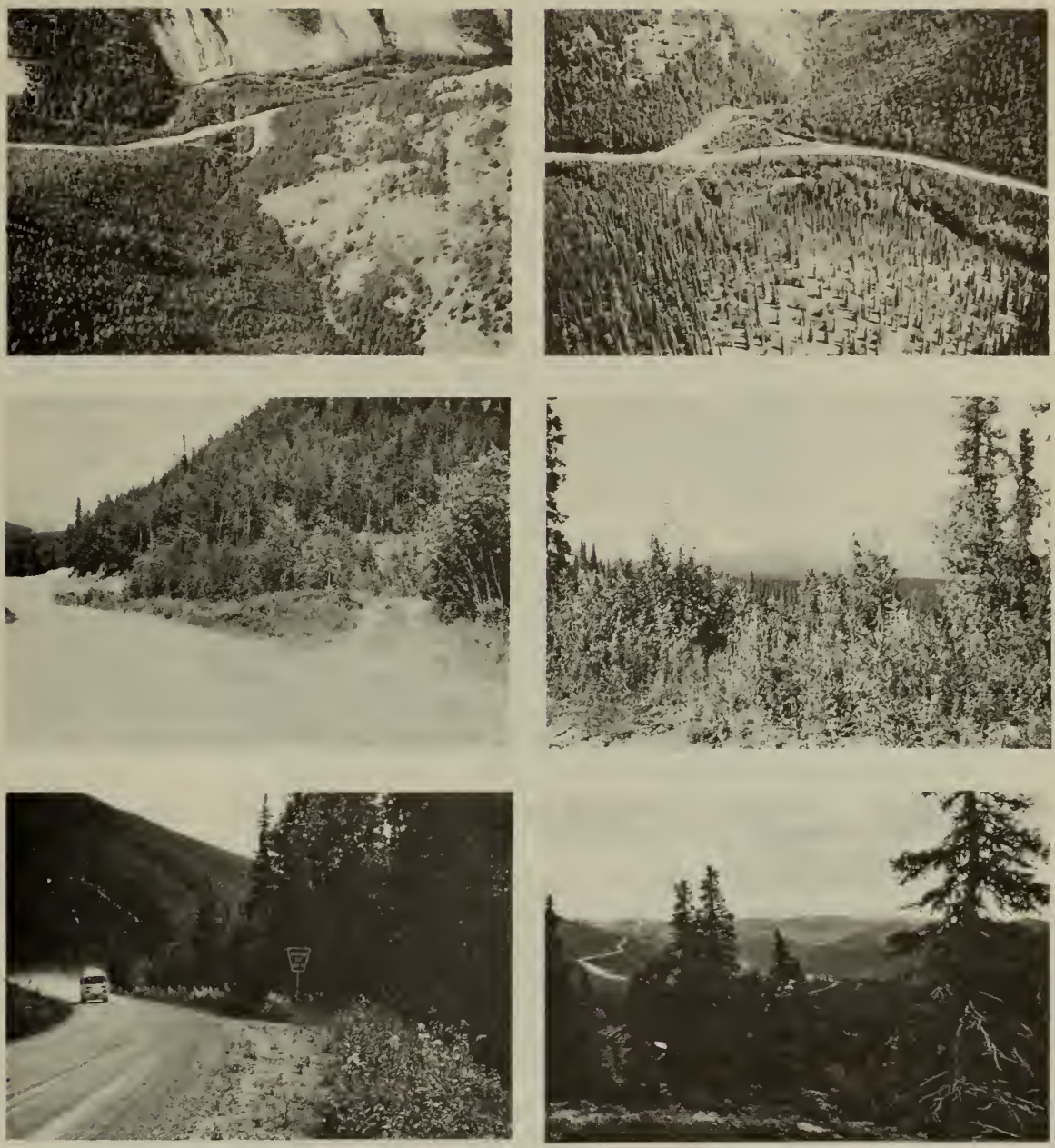


Figure A-1

MP	Site Description
100.2 ES	GP Visual intrusion; screen entrance from Highway if this GP must remain in active use. (N)
100.7 ES	GP, RD Visual intrusion; screen GP from Highway. Road running south from GP goes to mine in valley below. Tourists should be advised of miners' rights. (S)
101.7-104 ES	TO, TR, SA, PA Rock outcroppings along high ridge north of Highway offer many spectacular views, particularly east towards Boundary, Alaska. Several sites along the north side of the road offer potential TO's for trail access (as at c. MP 102.5 ES). An unmarked rudimentary trail system exists. This should be carefully realigned to avoid pedestrian-generated erosion. Lichens, alpine plants, etc. offer excellent opportunities for a labeled nature trail. A picnic area would be appropriate near the roadside trailhead. (N)
C.103.25-103.85 ES	TO, TR, SA, PA Old roadbed jogs south of present alignment. Easternmost of the two jogs offers the best development potential (C. MP 103.68 ES). A turnout at the west end of this jog could accommodate a small picnic area. A trail approximately one half mile long leads to a spectacular panoramic overlook atop a rock outcrop which offers a vista of over 180° overlooking Boundary, Alaska and the gold mines in the valley below. (S)
106.0 ES	Boundary, Alaska and airport. Food, Gas, Services. (S)
108.75 ES	TO, G, THA, PA Major interpretive area for tourists entering from Canada. General information about Resource Area and specific information about the Taylor Highway route should be provided. Picnic tables and a viewing area looking over the panoramic view of the northern parts of the Fortymile Resource Area should be included. (N)
109.5 ES	RS Welcome to Fortymile Resource Area for westbound travelers. Include BLM and Fortymile logos. (N)
109.7 ES	U.S.-Canadian Customs at border. (N & S)
95.7 NS	Beginning of North Spur toward Eagle, Alaska.
95.8 NS	RS Clarify directional information and distances to services on both the east spur and the southern part of the highway for southbound travelers. (W)
105.1 NS	TO, TR, SA Overland road (trail) to Steele Creek Community. This should be interpreted as a vehicular trail. Its importance in terms of the freight and mail route from Chicken through Steele Creek to Eagle should be the predominant theme of an interpretive message at this station. (E)

MP	Site Description
109+ NS	RS A consistent policy on signing of sharp turns in the road is extremely important for highway safety beyond this point.
109.9 NS	TO, TR Existing scenic trail to spectacular vista overlooking the Fortymile River Valley. Access to TO is dangerously screened from view of southbound traffic. Existing TO will accommodate few cars and enlargement would require substantial grading due to topography. (E)
110.2 NS	RS Clearly warn of hidden TO access; slow and turning vehicles. (W)
112.6 NS	TO, SA Fortymile River Crossing. This is a major take-out site for float trips coming down the river. The Highway Department in cooperation with BLM is developing a river contact recreation area at this site. Current river condition information should be constantly available at this site. A registration facility should be provided for river travelers. (W)
113.3 NS	TO, SA, PA O'Brien Creek Crossing. Interpretive sign telling the historic events which have occurred on O'Brien Creek. Sites north of the bridge overlooking the Creek would be preferable and would offer pleasant opportunities for picnicking. (E & W)
117.2 NS	CP Alder Creek. Existing campground - renovate. An additional similar site may be developed on the opposite side of the creek to meet increased demand. (W)
118.2-118.4 NS	TO, SA View of King Fire. Interpretive message cautioning of fire hazards. (E)
119.6 NS	TO, SA Abandoned highway construction road camp. This site could be used to interpret the construction methods used in the development of the Taylor Highway. This will be particularly interesting as new construction continues on the Highway. (E)
124.4 NS	TO, PA Columbia Creek Crossing. Turnouts on either side of bridge offer pleasant views of creek, ideal for picnicking. (E & W)
125.4 NS	O'Brien Creek Roadhouse. (Lodge and Cabins) Tourist stop; fuel, food, beverages, and lodging. (E)
131.5 NS	CP Liberty Camp. Existing BLM campground at the confluence of Liberty and King Solomon Creeks. (E)
131.6 NS	TO, SA Liberty. Private Cabins. Turnout used for interpretive exhibit of miners' cabins and small-scale mining techniques. (E)

MP	Site Description
135.8 NS	TO, PA Northfork Crossing. GP E. can include picnic area development near river in conjunction with GP renovation and revegetation. (E)
140.0 NS	RS, TO, SA Replace Glacier Mt. management sign with sign conforming to area-wide format, TO and interpretive description of management practices, wildlife species of the area, etc. Should be consolidated into one site with renovated GP and TO at MP 140.6 NS. (W)
140.6 NS	TO, SA Existing TO with trash cans visually prominant. Renovate and include Glacier Mt. management sign and interpretation from 140.0 NS. (W)
141.5 NS	TO, SA Same as TO, SA at MP 140.6 NS, but for northbound traffic. (E)
c. 143 NS	Confirm location of highest point in road and post. (E & W)
145.9 NS	GP, TO, SA Elevated gravel site rises above Highway. Road level TO with path to elevated terrace overlook will yield a spectacular view N., E. and S. in excess of 180° panorama. Wrangel Mountains visable on clear days (?). Interpret geology and geography. (W)
148.6 NS	Gravel Gulch Cabins. U.S.G.S. maps indicate a shelter cabin. Roadside signs warn of shooting. Clarify situation with residents, post accurate official information for tourists and notify U.S.G.S. through proper channels if present status differs from map information.
149.1 NS	TO, PA Discovery Fork Crossing. Small PA's can be developed on old roadbed. Small TO's with trash containers exist. (E & W)
149.6 NS	TO Star Gulch. Confirm status of ownership and intended use. Small TO exists. (E)
150.9-151.0 NS	TO, SA Active Mining. Interpret at TO. Discovery Fork and Teddy's Fork join to form American Creek. Move Glacier Mountain Management area sign and design to conform to area-wide format. See Figure 49. (W)
152.2 NS	Bergland Cabin. Present sign is too small and poorly placed. Few remains of structure. Poor TO potential due to topography. Current availability of Born on Snowshoes is questionable. Author is not particularly well known by local tradition. Eliminate sign,replace with ground level plaque for knowledgeable tourists. Discourage roadside vehicular stops in area due to highway safety. (E)
152.5 NS	TO, PA, SA American Creek Crossing. Small PA's can be developed on old roadbed. TO's with trash containers exist. Natural asbestos outcrop exists at north location. Interpret geology. (E & W)

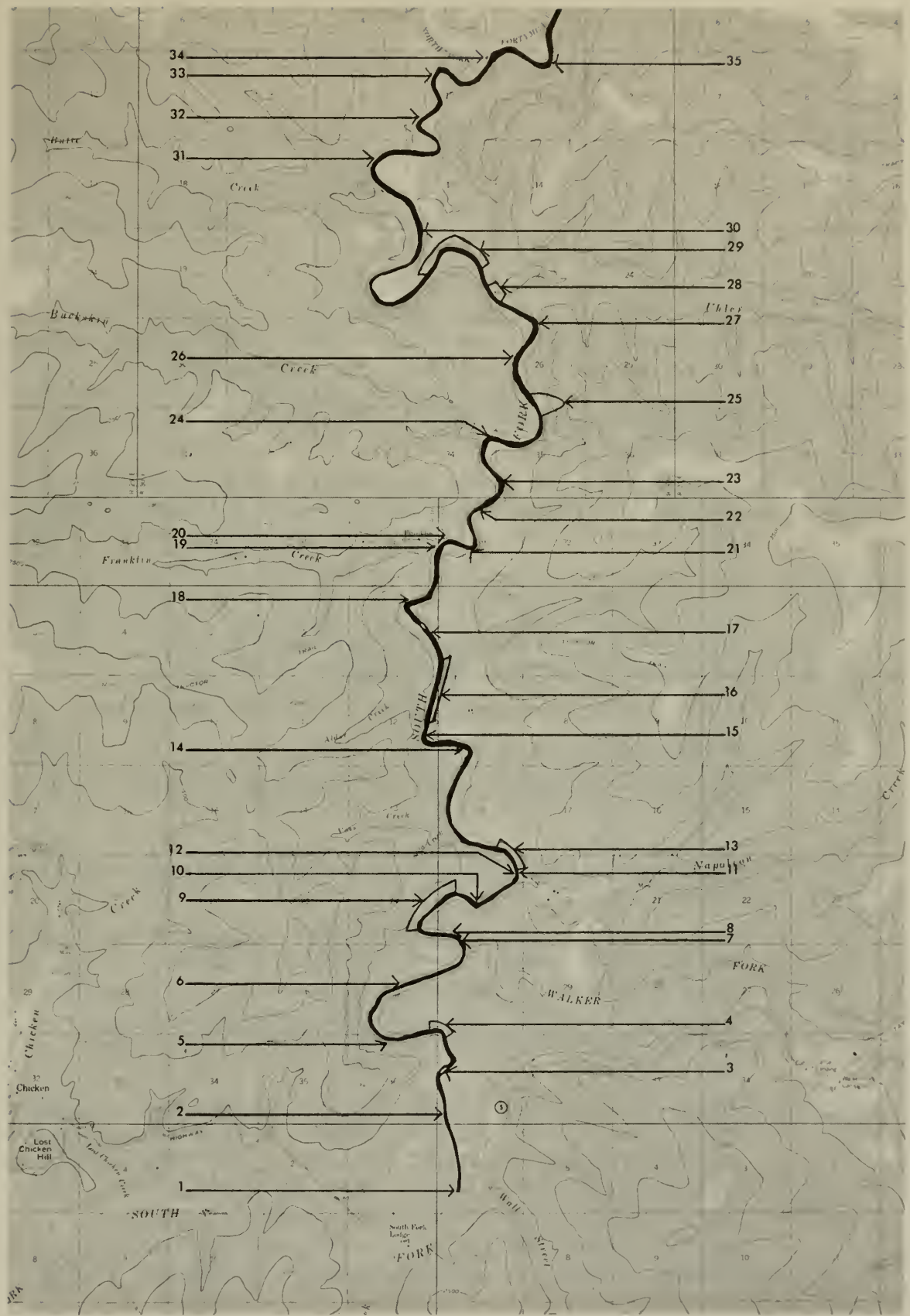
MP	Site Description
153.35 NS	Spring on east side of road. Too close to road. Either renovate to provide adequate TO or remove conspicuous pipe and support. (E)
154.0 NS	TO, CP, SA Existing campground, picnic area and recreational gold panning site. Over-used at present. Renovate or close. Additional picnic area and campground development along Highway will reduce demand at this site somewhat. Realignment of Highway toward east could allow enlarged area. Opposite side of creek has potential if bridge or suitable ford is provided for crossing. (W)
157.4 NS	SA, PA, CP Bluff Creek. Attractive picnic area and/or small campground can be developed along old roadbed. Interesting remains of old bridge. Interpretation of old road (trail) possible here. (E)
159.3 NS	TO, RD, SA Road to site of old Eagle telegraph station. (Approximately 1/2 mile). An outstanding panaramic view is available from a terraced turn-around and camp site approximately 1/4 mile up road. This should be developed as an Eagle overlook with substantial interpretation of the geology, geography and history of the areas viewed. At the telegraph station site, the historical importance of the telegraph line should be interpreted. (E)
159.9 NS	TO, GA, THA Welcome visitors to the Fortymile Resource Area and provide general information. Provide specific information on Taylor Highway route(s) and facilities. (W)
159.95 NS	RS, ! Welcome sign to the Fortymile Resource Area (with Fortymile and BLM logos). (W)
160.1 NS	TO, !, SA Existing Eagle and Taylor Highway signs consolidated in ample TO to welcome visitors to Eagle and give general directions. (E)

APPENDIX B

SUGGESTED SITES FOR RIVER INTERPRETATION

As discussed in Chapter 3, the investigators had the opportunity to raft a short section of the South Fork and main stem of the Forty-mile River. High altitude color imagery was available for a portion of the floated section of the river.

Working primarily from the imagery with reference to water level slides and notes from the float trip, the sites indicated on the accompanying map were selected for interpretation as part of the river interpretation and recreation management system. Included within the thirty-five suggested sites are all of the interpretive elements identified in Chapter 3. As was suggested, these sites can be unobtrusively identified on the ground. The description of each feature, as well as information about the river, should be included in the river recreation and interpretation brochure. The same procedure could be easily applied to the entire recreation portion of the Forty-mile River. Suggested sites for interpretive treatment are shown on Figure B-1.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Franklin
Creek
FORK
SOUTH
WALKER
FORK
Chicken
Chicken
Lost Chicken Hill
SOUTH
FORK

Figure B-1

River Interpretation Notes

Number	Description
1	BLM campground at South Fork bridge. This area should be designated as a major river contact point for float trips down the South Fork.
2	Miners cabin and sluice mining activity on the west bank.
3	First major bend in the river. Small island in the center of the channel. At one time this was a major bend in the river. An oxbow lake lies off to the east. There is some white water coming around the first bend and on through the bend.
4	Tight bend to the left. Massive rock face on the east side of the river. The current moves swiftly around this bend. This is a prime example of the geology of the river gorge.
5	Gravel bar in the river on the east side of the river. Large boulders west of the bar create white water conditions for a short distance beyond the bar. The current moves rather swift at this point.
6	Miners cabin and cache just back from the river bank.
7	Confluence of the Walker Fork.
8	Large rock facing on ridge just below Walker Fork confluence.
9	Geologic feature rock formation. Exposed rock rills interspersed with vegetation. Interesting example of river gorge geology.
10	Bend in river. Many large boulders. This is a hazardous passage, particularly in periods of low water.
11	Confluence of Napoleon Creek. Site of cabin ruins and scattered equipment left behind by gold miners. This would be a desirable site for a river stop picnic and small camp area.
12	Miners cabin on bluff above river, in clear view from the river. This cabin is in good repair. There are numerous artifacts within and around the cabin. The site is very typical of the miners cabins found along the river.
13	Large rock outcropping in a deep cut in the channel a short distance down stream from the Napoleon Creek confluence. There is some white water in the bend. The current moves swiftly through this cut and bend.

Number	Description
14	Large gravel bar on the west side of the river bend. This is a tight bend where the current moves swiftly. The river channel constricts just beyond the bend. The river flows west for a short distance then bends sharply back to the north.
15	Sharp narrow bend where the river channel turns back to the north. The channel constricts through the bend. The large rock fact to the left is a major geologic feature in the bend. The current moves swiftly through this bend.
16	Along the east bank of the river, the spruce trees are bending low over the channel. This is caused by the action of ice and snow. Side bank erosion occurs in the spring as the ice moving downstream scours the bank.
17	Large gravel bar in the middle of the channel. There are large boulders in the east channel. Passage is suggested through the east channel.
18	Small gravel bar to the west side of the channel. Tight bend to the east. The current is swift through this bend.
19	Large gravel bar on the west side of the channel just above the Franklin Creek confluence. Floaters must beat to the right of the bar then turn sharply left to pull on shore at Franklin Creek.
20	Franklin Community. The majority of buildings which constitute the townsite are situated in a small cluster overlooking the river. (See sample interpretive message and guidelines for interpreting the Franklin Community.)
21	Approximate site of the blacksmith shop, cable drum, and boiler which powered the cable car which was strung across the river. The cable car crossing was used by the miners to transport equipment and supplies across the river. Part of the remains of the boiler are lying in the river just below the bluff. Several dredge buckets from the little dipper dredge are scattered around the site. The cable also supported a drift mining operation. The spar pole is still standing at the top of the bluff.
22	Exposed boulders at low water. Rough white water late in the season. Care should be exercised in negotiating this passage.
23	Exposed rock face. Gravel bar on the west side of the river forces the channel to constrict during low water. The current moves swiftly through this area.
24	Confluence of Buckskin Creek. There are cabin ruins on the bluff just above the confluence. This is a tight bend

Number	Description
	in the river. Late in the season, there are numerous exposed boulders creating white water conditions. The current moves swiftly through this bend requiring considerable care by floaters.
25	Large rock formation on east side of river. The rill pattern is typical of the river gorge geology. The current moves rather swiftly around this gentle bend.
26	Steep, exposed rock face on the west side of the channel. A short distance downstream, the river will make a tight bend to the left.
27	Tight bend to the left. The large rock outcropping on the west bank is a good example of the geology of the river gorge. The confluence of Uhler Creek is only a short distance downstream from this point.
28	Confluence of Uhler Creek. A cabin and cache is located on the gravel bar just above the confluence. There are several cabin ruins further up the drainage. This gravel bar is a desirable stop for rest and picnicking. The current moves rather swiftly around this gentle bend.
29	Massive rock face formed from the major ridge above the river. The river bends tightly to the southwest and flows in a large loop around the ridge to the northeast. The current flows swiftly through this loop.
30	Black spruce bent over the river as a result of the force of ice moving down the river during spring break-up.
31	Steep rock outcropping. Signifies a high ridge on the west side of the channel.
32	Large rock face which is part of a ridge formation.
33	Massive deep rock face. This forms the ridge which extends to northeast. The river bends sharply to the northeast as it flows towards the confluence with the North Fork. The river channel constricts through this bend creating swift current. The current slows down as the channel straightens on approach to the confluence.
34	Confluence of the South Fork and North Fork. The ridge point is an excellent site for a campground. The vista to the northeast in the early hours of the morning is one of the most scenic views one can experience on this section of the river.

Number	Description
35	Site of boiler and cabin ruins. The boiler was hauled to the site for possible use to power a dredge. It was never used for this purpose. Near the boiler are numerous sink holes which were dug for winter mining. There are several cabin ruins and scattered artifacts around the site. This would be a desirable location for an off-river interpretive loop trail. Each of the elements could be interpreted through the use of small plaques and post-mounted signs. A small printed brochure could be placed in a dispenser attached to a larger exhibit board.

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PROPOSED MINIMUM PERSONNEL CONTACT INTERPRETATION AND VISITOR MANAGEMENT FACILITIES FOR THE TAYLOR HIGHWAY

LEGEND

N north
S south
E east
W west
NE northeast
NW northwest
SE southeast
SW southwest
MP milepost =
BR bridge
CK creek
CP campground
GP gravel pit or surface scar
RD road
TR trail
WX weather station
! welcome display
GA general, area-wide interpretive area
THA Taylor Highway interpretive area
SA site-specific interpretive area
VC visitor center
TO roadside turnout and/or rest area
RS roadside interpretive sign
PA picnic area
vista

continued on reverse side

PROPOSED MINIMUM PERSONNEL CONTACT INTERPRETATION AND VISITOR MANAGEMENT FACILITIES FOR THE TAYLOR HIGHWAY

LEGEND

N north
S south
E east
W west
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NW northwest
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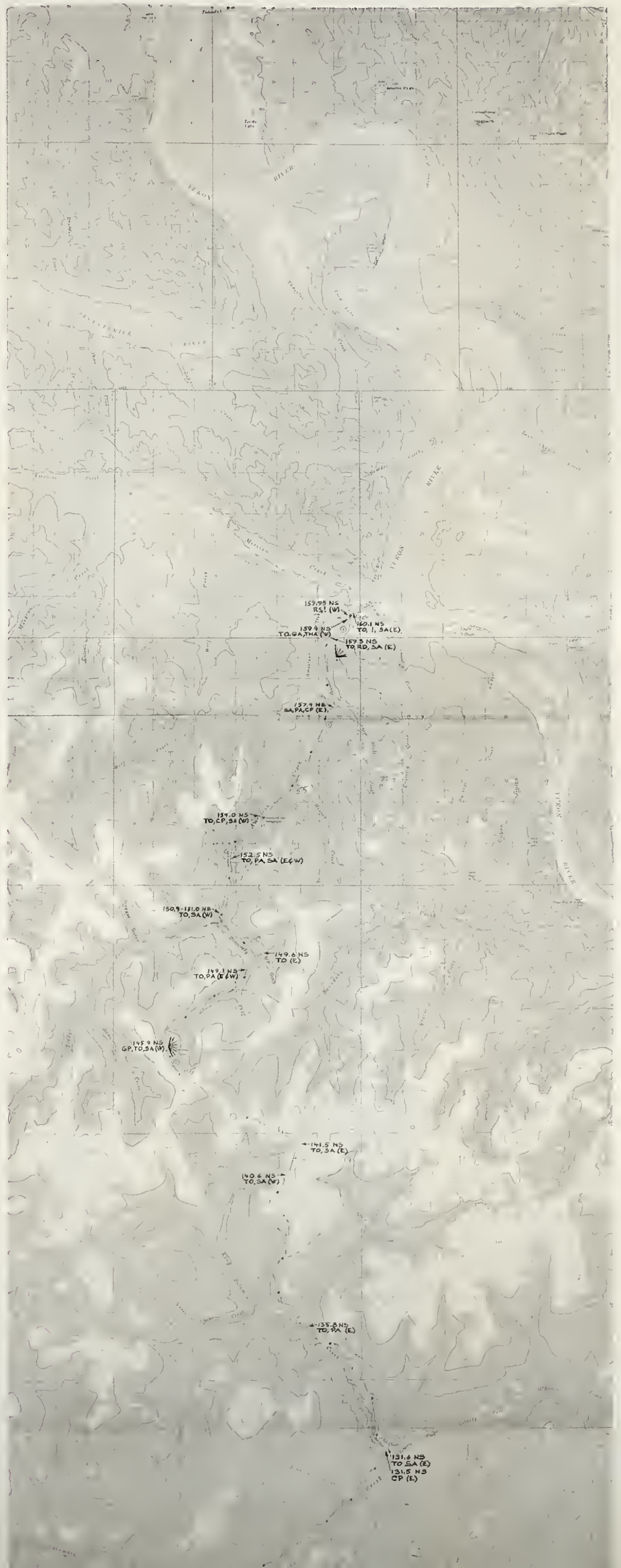

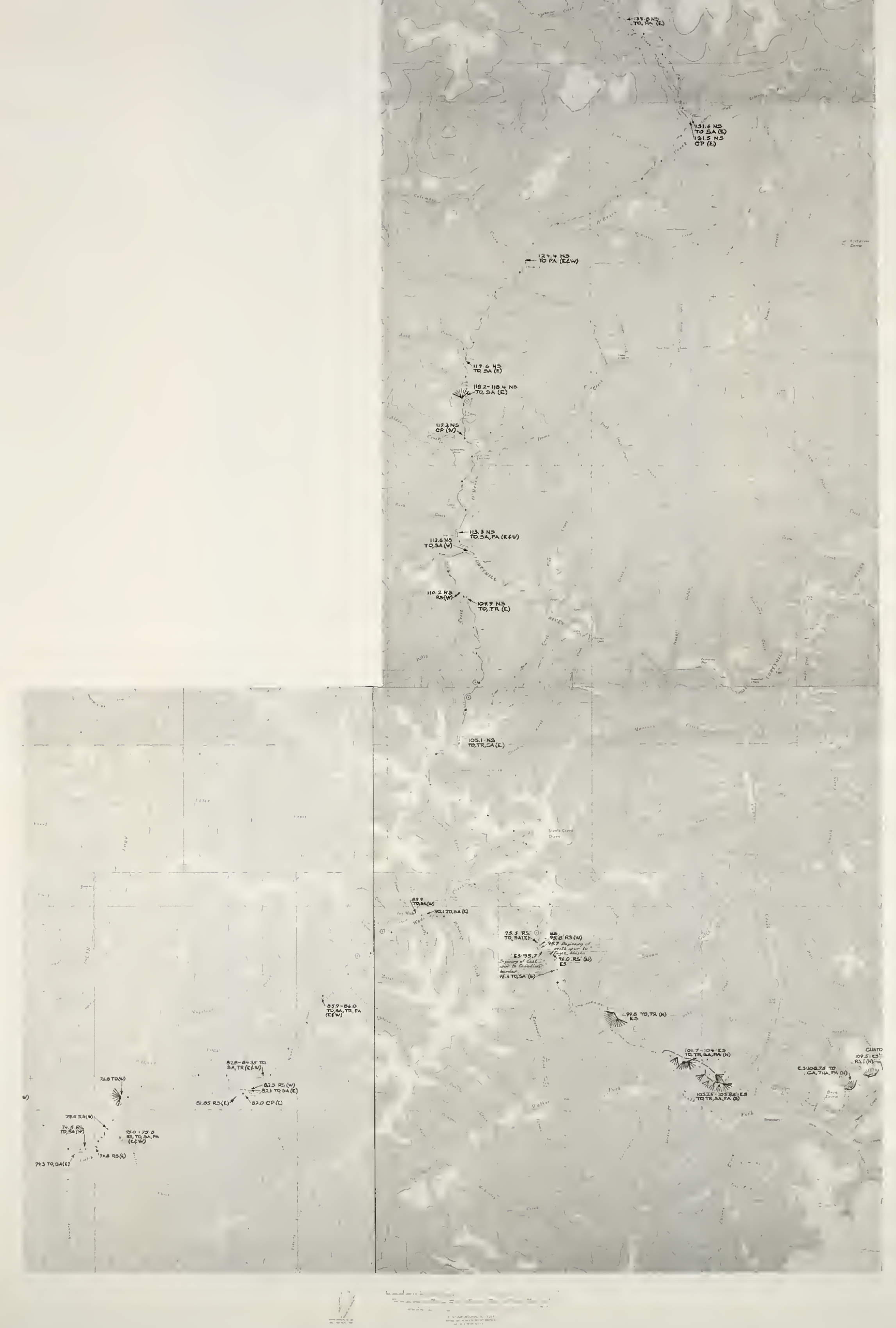

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